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A Clinical Lecture

ON

TEDIOUS RECOVERY FROM ILLNESSES.

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BY

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GENTLEMEN,—You must all have witnessed cases of disease which have proved unusually rebellious to what has been regarded as appropriate and careful treatment. When we meet with them they always enlist our interest, and give rise to much thought and repeated scrutiny. They tend to sharpen our clinical acumen and heighten our assiduity and endeavours to promote recovery. We shall do well to consider some of them to-day. My subject is large, and I must not be discursive.

I will take first rheumatic fever, and start with the view that a correct diagnosis of this condition has been made. We are accustomed to find that the prevalent method of treatment by salicylate of sodium in appropriate doses is satisfactory for the relief of pyrexia and the pains in a majority of the cases. Occasionally, however, we meet with cases which yield imperfectly to this treatment. It may be that the dosage has been inadequate, or that it has enfeebled the circulation. In the first case, larger doses may succeed, or in the latter we may substitute alkalis and quinine with better success. Our failure may be entirely due to an improper dietary in the meantime. It is certainly found that animal food in the form of any preparations of meat is hurtful, and that milk diluted with soda water and simple farinaceous food are best. Again and again I have seen benefit derived from withholding simple beef-tea, and in languid cases, with profuse sweating, great benefit from the employment of an ounce or two of brandy.

Lingering cases of this kind compel us to reconsider the diagnosis. We may be dealing with an acute form of osteo-arthritis, or of gonorrhoeal or other variety of septic arthritis which is unaffected by salicylate treatment. Again, we have in such cases to regard the particular habit of body of the patient, and may discover that there is a strumous element in the case which well explains the lingering quality of the ailment and its prolonged hold on the particular patient. The strumous habit is a bad soil for all specific infections. Some cases regarded as acute rheumatism, especially in elderly patients, with poly-arthritis, are sometimes found to be examples of generalized gout of a very obstinate character, and these occur in persons who have never had overt gout previously. They yield to treatment for gout after long resisting the ordinary treatment for true rheumatism. In some of these rebellious cases there is a taint of syphilis, and we meet with them in this hospital, where so many patients come to us with imperfectly treated syphilis. We have to be careful that we remember the patient as well as his ailment, and do not allow his general nutrition to fall to too low an ebb.

Let me take next the case of enteric fever, obviously recognized as such by manifest symptoms. Sometimes these cases linger long in a febrile condition, it may be by one or more distinct relapses, or after these have passed off. Convalescence is at a standstill. There may be local abscesses, or venous thrombosis and other conditions regarded as sequels, but which are verily the dregs of the original infection. The retarded improvement may be due to inadequate feeding, to a too prolonged slop diet, which prevents sound healing of the intestinal lesions. Better nourishment often avails to help recovery in such instances. A diligent search for some terminal infection may explain the continued illness, it may be in the abdomen or the thorax. Again, we meet with continued fever much simulating varieties of enteric which owns other causes. Amongst these are cases of infective endocarditis and tuberculosis not suspected. Malta, or undulating, fever, for example, is sometimes mistaken for obscure cases of enteric fever. If we remember these facts we may be put on our way to a correct diagnosis.

I have just mentioned infective endocarditis; and as to this we may be off our guard if we fail to suspect this insidious malady because we find no clear evidence of any cardiac mischief. Some of these cases present no indications of valvular disease for a long time in their course. A careful examination of the blood may, or may not, reveal microbic elements in the system. We are certainly in the presence of a lingering disease here, for it may run on with pyrexia for twelve months.

We meet with cases of influenza which are tardy in proceeding to sound recovery. Sometimes an attack of enteric fever sets in, and attacks a patient already enfeebled by the original infection. Other terminal infections may also supervene. More commonly, as in the recent epidemic, pneumonia and myocardial failure reduce the patient to a very low ebb, and may prove fatal, especially in elderly people. Over-treatment by salicylates may sometimes account for the cardiac depression. Influenza may long prove a source of low health and of bodily and mental incapacity, and full vigour may not be restored in robust persons for a year or two. It appears to attack any part of the body without discrimination, and, not seldom, without any febrile symptoms.

Latent tuberculosis is a malady which sometimes masks the course of what appears for long to be a simple febrile illness. There may be slight pleuritis, not seldom right-sided, which yields slowly, with little cough, no expectoration, but continued pyrexia with evening exacerbations. When a little sputum can be procured, no tubercle bacilli may be found. Wasting proceeds slowly, and some clubbing of the fingers may occur. The pulmonary physical signs are quite insignificant. At last some bacilli are detected in the scanty sputa, and the nature of the case is cleared up.

As I have told you before, a persistent febrility in persons under 30 years of age, without obvious signs of mischief, is always most suspicious of tuberculosis, even in the absence of obvious delicacy and any family history of the disease. Pneumonia of an apex which is slow to resolve, should surely lead to suspicion of tuberculosis, as the enduring element in the case. Non-tuberculous pneumonia is sometimes very slow to resolve, or the associated pyrexia to subside. An interlobar empyema may be the cause of this.

Gout in some of its forms may sometimes prove very rebellious to careful treatment. We notice this occasionally in young men the sons of very gouty parentage. The condition is one of gouty cachexia, with an enfeebled constitution. In older patients the continuance of painful

joints is sometimes found to be grievously persistent, even with every care in diet and treatment. Occasionally we find such patients have been over-careful in their diet, and placed upon an inadequate quantity and inappropriate quality of food. There are too many strange and *doctrinaire* methods of diet enjoined in these days, and some of these, mostly imported from Germany on purely theoretical grounds, are found positively harmful. A better and more natural diet, with some good wine, is materially helpful in some of these cases, and brings relief and renewed health. Some of these polyarticular cases are sometimes regarded as rheumatic, and treated as such without any benefit. A recognition of the true nature of the ailment leads promptly to relief if appropriate treatment is prescribed.

Amongst cases in which recovery is apt to be retarded, and very tedious, are those of neuritis, a disorder which is apparently more frequently met with now than it was wont to be. It is a recognized sequel of influenza, and is one of the ailments that is apt to depend on gouty disturbance. In elderly people it is especially apt to linger, wearing out the powers of the body, and leading to intense suffering, muscular and other trophic (wasting) changes in the part affected. Post-zonal neuritis well illustrates what I refer to, and is a sore calamity sometimes in elderly patients. Many months may elapse before relief comes. Sciatica is another example. Treatment of every kind appears in some of these instances to be quite unavailing, and one hardly knows how these ailments cease at last to vex the patient.

You will have observed that I have not been discussing the course of maladies essentially chronic. These are indeed tedious. I have referred to a continuous and protracted course of acute ailments, so that the point of recovery is not yet reached. An acute disease may sometimes subside, but the patient is left with feeble recuperative power, so that he cannot readily be restored to sound health. He may never subsequently reach the measure of full vigour he once enjoyed.

I have already indicated the importance of occasional recasting of the diagnosis in any protracted case of disease, a point carefully urged by Sir James Paget in his teaching. This procedure will sometimes set us on the right track for successful treatment. There are cases of retarded recovery which can promptly be benefited only by securing a fresh and thorough change of environment. You move such a patient from a sick room in a crowded city and place him in fresh country air, and immediate progress is witnessed. There are many houses everywhere where there are some unwholesome and insanitary influences at work which suffice to retard recovery; influences, perhaps, not readily detectable, but you do well to urge removal of the patient, if possible. In the course of many ailments of children who continue to be languid and feverish when no obvious signs of disease can be found—for example, after an attack of measles—such a change is found to be most valuable, and to act favourably when tonics and good diet have made but little impression. Similar benefit is to be gained in many ailments of a surgical nature, but it is not my business to refer to them. I think, too, that gynaecologists could tell of like advantages to be gained in this way.

In any case of lingering illness we shall do well to try and discover any personal peculiarities in the patient—to bear in mind the personal factor, so often disregarded at the bedside. We shall be wise, too, if we remember the remark of a sagacious physician—to the effect that "each patient convalesces according to the nature of his constitutional diathesis."

At a meeting of the British Balneological and Climatological Society on June 11th the following were appointed officers for the ensuing session: Dr. Leonard Williams, President; Dr. A. F. Street, Chairman of Council; Dr. R. Fortescue Fox, Hon. Treasurer; Dr. Harry Campbell, Librarian; Drs. Septimus Sunderland and F. A. de T. Mouillot, Hon. Secretaries; twelve Vice-Presidents and thirty Members of Council were also elected. On the same occasion it was resolved that next October the Society shall become a section of the Royal Society of Medicine. The annual dinner was held the same evening at the Piccadilly Restaurant, one of the guests being Sir James Barr, who in the afternoon had delivered an address on the peripheral circulation and its treatment.

An Address

ON THE

SURGICAL TREATMENT OF THE RHEUMATOID GROUP OF JOINT AFFECTIONS.*

BY

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Of late years our views of the rheumatoid group of diseases have undergone a welcome change. The investigations of Strangeways, Goldthwaite, Painter, Still, Andrews, Hoke, and others, have helped materially our classification, and the terms "rheumatism" and "rheumatoid arthritis" have not their former diagnostic value. The knowledge we now possess enables us to distinguish certain types so different in character as practically to constitute distinct diseases—distinct from the clinical side as well as from that of the pathological.

Although perhaps needing some further revision, the classification of Goldthwaite is distinctly helpful. He recognizes five types:

(*a*) Villous arthritis.
(*b*) Hypertrophic arthritis.
(*c*) Atrophic arthritis.
(*d*) Septic arthritis.
(*e*) Chronic gout.

The medical treatment of these conditions is an ever-discussed problem, and great strides have quite lately been made in our dealings with the atrophic variety by the recognition of its autotoxaemic origin. On this occasion, however, I will refer only to the surgical treatment of the group, because it has been much overlooked by surgeons and bears but a scanty record in our literature. There is no class of disease in which less attempt is made either to prevent or to correct deformity. Knees and hips flexed, wrists in useless postures, elbows of no service to the hands—these are almost a routine result of either the atrophic or hypertrophic attack. Physicians are content if the patient is comparatively free from pain, and the deformities are looked upon as an essential and permanent phase of the disease. In the early stages the practitioner has great opportunities. It is for him to discover whether an infective or toxaemic focus exists in nose, teeth, pharynx or intestinal tract. I have seen it in connexion with middle-ear disease, with chronic abscess of the antrum, and with ozaena, and the general condition has responded to local treatment. Andrews and Hoke, of Atlanta city, have shown the direct relationship of arthritis deformans to albuminous putrefaction in the intestinal tract, and therefore how necessary it is to decrease the supply of albuminoids or to prevent their putrefaction. These are all encouraging lines of research which may ultimately deprive these diseases of their terrors, but for the present there is ample necessity for direct surgical intervention, mainly of an operative type.

Villous Arthritis of the Knee.

We all know well a type of disease in the knee, very commonly associated with flat-foot; it has been called villous arthritis. The range of movement is usually good. There is no general rigidity, but sometimes considerable pain when an attempt is made to flex the limb completely. There is a creaking on movement which differs from that of osteo-arthritis as much as it does from that of teno-synovitis. It is not so coarse as the one nor so fine as the other. There is usually pain on pressure over the internal lateral ligament.

Accompanying this form of trouble there are no constitutional symptoms. It is due to a congested and relaxed condition of the synovial membrane, which becomes thrown into folds, especially at its reflections at the edges of the cartilage. There is nearly always some little fluid found in the joint, which varies in quantity and at times quite disappears. Prolonged friction invariably intensifies symptoms, and pain is complained of, accompanied by stiffness. In a certain variety a marked thickening is

* Delivered before the alifax Medical Society.

noted behind the ligament of the patella, and after walking pain is complained of on squeezing this lump. In more advanced cases the contour of the joint is lost and the pouches denote a thickening of the synovial membrane. Sometimes locking of the joint due to synovial fringes occurs. Such a knee has also been called the "chronic rheumatic knee," and at times "recurrent traumatic arthritis." The changes in such a knee are not symptomatic of any general condition and are really due to trauma—a simple sprain, deflection of body weight as in flat-foot, or to a direct blow. It can always be cut short in its early stages by limiting function and giving rest. Its development is always the direct result of friction. If destruction of the membrane has gone far and the villi have become obstructive, then only operative measures will prevail. It is well to take an *x*-ray photograph to see if any bony excrescences have formed or if a fibrous enlargement exists behind the patella. Distension of the joint with oxygen will render the picture on the plate much more instructive, but this must be done with scrupulous care. The sterile needle should be passed behind the patella and its end made to move freely when within the joint to ensure that the oxygen does not enter a vein.

In such a type of case it is often necessary to operate. An incision is made on the more painful side of the joint, generally the inner, and the interior is explored. In the early stages of trouble a slightly oedematous and congested condition of the synovial membrane is found, with reduplication at the cartilaginous edges. In other cases the synovial membrane has been transformed into a mass of short villi, and if traced into the pouches below the vastus, oedematous masses of synovial folds almost gelatinous in appearance present. In other instances long pendulous fringes with fatty extremities float about, and a few loose fibrous bodies are seen. In rarer instances, as soon as the joint is opened, a congested mass of long villi, resembling a fine variety of seaweed, brown or reddish-brown in colour, blocks the wound up. Whatever the variety we meet with, a pair of long curved scissors is introduced into the joint and all synovial excrescences are cut away. This is tedious and difficult, and thorough care should be taken to free the articular surfaces from invasion. An incision should then be made on the outer side of the knee and the clearing process repeated.

The variety to which the term "recurrent traumatic arthritis" is best applied is very interesting. It is that form characterized by a thickening behind the patella tendon. When the joint is explored the adipose mass with which the ligamentum mucosum and alaria are connected is found reddened, thickened, and oedematous. It should be removed in its entirety with any masses which may be encountered. On cutting through this several small haemorrhages will be found, representing separate injuries, probably the cause of the recurrent effusions. Personally, I do not drain the joints, but fix a cage on them, allowing of limited movement in from fourteen to twenty-one days. Such cases often make remarkable recoveries, and do not display the tendency to recur which might be expected.

Atrophic Arthritis.

Atrophic arthritis, which used to be called "rheumatoid arthritis," as opposed to hypertrophic or osteo-arthritis, is perhaps the most crippling of all the varieties. It is the least amenable to surgical intervention, but will, doubtless, in future be a more docile disease in the hands of the physician, who should from the first recognize that the deformities of the limbs may be prevented by simple mechanical devices, and this is most important, especially in the knees. The symptoms of this affliction are, briefly, thickening of the periarticular structures and effusion within the joints. It begins usually in the fingers—spindle-shaped swellings affecting the first row of phalanges. The whole of the joints may become affected. A radiograph throws much light on the condition; the bones of the hand are thinned, and sometimes telescopic; the absence of cartilage between the bones, together with a general joint atrophy, are very characteristic.

In certain cases the atrophic variety will apparently remain quiescent, leaving certain joints free, or but slightly affected. I have in my mind one such case, which I will relate:

Sixteen years ago the late Dr. Cameron, of Liverpool, asked me to help in the case of a young lady of 21. Her hands were partially affected; the hips were free, but the knees had for some years been acutely flexed. They were bound down by firm fibrous ankylosis, which resisted for a time all attempts at extension. After three months of very painful traction and straightening with manipulation under anaesthesia, the knees became straight, and walking was painfully persevered with for three years. I then opened the joints, denuded them of cartilage, and brought about a bony ankylosis. I saw her twelve months ago, eleven years after the operation, and she can walk for miles, and there has been no further involvement of joints.

Arthritis of the Wrist.

Never let the arthritic wrist, septic or tuberculous, ankylose in a position of flexion. If ankylosis is to take place, see that it does so in the fully extended position The power of grasp is lost when the wrist is flexed, and it therefore becomes a paramount necessity that no mechanical obstacle should be placed upon rigid fingers.

Hypertrophic Arthritis.

The hypertrophic variety is known to us all, and time will allow me to refer only to its more local manifestations. These we can best study in the knee and hip. The condition often affects one or both knees, and may show no tendency to spread to other joints. There is a limitation of movement, some effusion in the joint, coarse creaking and a fullness around the patella a little later, and any attempt to fully extend the joint is painful.

The *x* ray shows considerable lipping, evident early along the edges of the tibia and on the bony edges of the femoral condyles adjacent to the cartilage. It is also seen along the edges of the patella. Such cases, both at the hip and knee, are generally handed over to the masseur or to an institute for baths and electricity. Clinical evidence, however, is overwhelming that friction of joint surfaces in the hypertrophic form of arthritis is a factor to be scrupulously avoided. Any treatment which ignores this is faulty. When knees or hips become ankylosed in the course of the disease, as sometimes happens, pain disappears; and when this occurs we usually find the deformity so pronounced as to cripple the patient completely. In knee and hip the extremes of flexion and of extension are most harmful. The motion between these extremes is often quite free and painless. The essential element of treatment is to affix a splint so constructed that it will only allow the joint to move in its painless range. In the knee this is often most efficacious, and I generally apply a cage, such as is used for a slipping semilunar cartilage, and have it so locked that it will not allow the knee to straighten within 15° or 20°, nor will it allow of more than 50° or 60° of motion. In many cases it has been possible to restore such cases either to a full or to a more extended range of movement. In extreme cases of osteo-arthritis of the knee, where flexion is pronounced and walking difficult, the joints may with advantage be ankylosed. Exploration of the joints with a view to clipping bony prominences in order to obtain a movable joint is, in my experience, useless.

Perhaps the most generally sad and anxious cases which come before the practitioner are the painful hips of middle life and later. They are due to a hypertrophic form of arthritis, which when it occurs in the old is called "malum coxa senilis." The head of the femur becomes changed in shape, flattened, and at the femoral and acetabular margins masses of bone are segregated. In the same way the edges of the acetabulum are surrounded with irregular heaped up lumps of bony tissue. The lesion is progressive and its rate of progress is largely influenced by the degree of friction imposed. Clinically, I know that if taken early and placed in a splint, many such cases with stiffened hip make excellent recoveries. Such treatment generally involves four months in bed and fixation for three months longer. In the later stages where flexion has become more pronounced there is a distinct risk in even slowly attempting to rectify the deformity mechanically. In a patient who suffers from this type of disease forcible manipulation is quite unjustifiable. I never do more than place him on his back, bandage the limb to a splint and let gravity undo the flexion. The trouble is, however, that in many cases abdominal symptoms supervene. The patients complain of pain, present abdominal distension, hiccough, even become collapsed. I have met with a disaster in the shape of death, and in three other cases patients have been critically ill. In such cases, when the pain has been unendurable, I have removed the head and

neck of the femur, and sometimes the trochanter, with satisfactory results.

PSEUDARTHROSIS WITHOUT DISARTICULATION.

One cannot help, however, being impressed by the shock which a disarticulation produces, and I have long felt that if it were possible to produce a pseudarthrosis without disarticulating the head a great gain would be accomplished. I advised, therefore, and have several times practised, an operation having this end in view. It consists in cutting the great trochanter from the femur with its muscular attachment, removing the neck of the femur and screwing or nailing the trochanter over the acetabulum, which contains the severed femoral head. This is to avoid callus exudation, which might bring about union. It is performed in this way:

Fig. 1.

A longitudinal incision is made about 6 in. in length with the upper border of the trochanter in its centre. An incision is made across the base of the trochanter just below the insertion of the gluteal muscle. A slice of the trochanter from this point to its junction with the neck above is sawn or separated by a very wide osteotome, and retracted upwards. The capsule is now opened and the head separated from the neck with an osteotome (Fig 1). Extension is next put on the femur, and the trochanter with its muscles attached is screwed on to the head of the femur, which remains in the acetabulum (Fig. 2). Deep and superficial sutures complete the operation. If the joint is tender it is better, to avoid impinging, to remove a portion of the neck. In an ankylosed sound joint following sepsis it may be advisable, instead of dividing the neck near the acetabulum, to divide it near the trochanter. I commend this operation as very suitable for those advancing in years. It saves the shock of disarticulation—an all-important consideration.

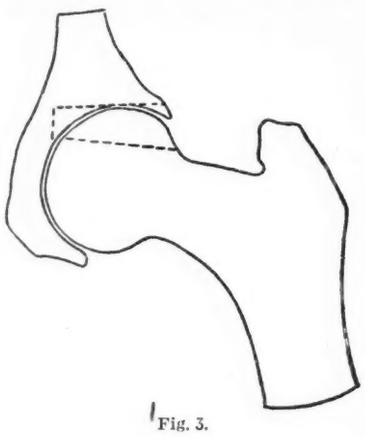

Fig. 3.

In bony ankylosis, where disarticulation has to be made with a chisel, the time saved is great and the result is more reliable than where a flap of tissue intervenes, unless the piece of bone removed is considerable, while the removal of much bone involves the sacrifice of muscle and of some control of movement. The femur remaining is well supplied with muscles for useful movement, and no stitching of capsule is needed for the prevention of displacement upwards.

The object of the operation is to bring about movement without involving the head of the femur, as we may be sure that function is the factor which produces all the trouble. If the joint should become ankylosed the pain disappears. Recognizing this fact, Albee of New York has devised a simple operation with the object of ankylosing the hip.

He chose for his first operation a big, muscular man weighing 185 lb., with a practical shortening of 2¾ in., with marked flexion and adduction. Albee made an incision down the front of the joint along the inner edge of the sartorius. Coming down upon the head of the femur, he removed without disarticulation half the upper hemisphere with a large chisel through a plane nearly parallel to the long axis of the neck of the femur. With the same instrument the acetabulum was transformed into a flat-surfaced roof, against which the bared surface of the femoral head was wedged by keeping the limb well abducted. To procure this abduction it was necessary to divide the adductors (Figs. 3 and 4).

The advantage of this operation is obvious, as it practically involves no shock—an important point in old folk. The difficulty often is to understand how flexion is to be governed. There are many cases, as we quite well know, in which no reasonable amount of mechanical force, even if the adductors be divided, will prove sufficient to extend the limb. In such cases it would be manifestly better to fix the hip without regard to the deformity.

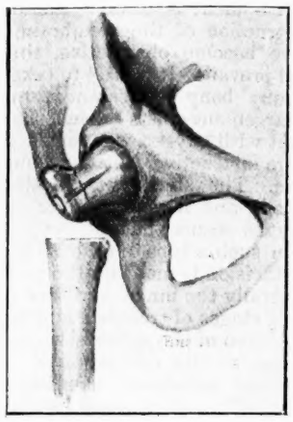

Fig. 2.

SEPTIC ARTHRITIS.

It is, however, when we come to the septic type of joint trouble that so much may be done to mitigate its miseries; so often this condition ends in ankylosis, usually with great deformity. In the case of the knee, we are often asked if movement can be secured without an operation.

If the disease has been severe, and there has been loss of bone, and the ankylosis seems firmly fibrous, no effort should be made to disturb the union. If there is already a little motion, which is easy and smooth within its limits, and the *x* ray confirms our conclusion that the destruction has been but slight, the experiment may be made. Any attempt to anaesthetize such a patient and to move his knee forcibly would be disastrous. Passive movements and massage would be only a degree less hazardous. The safe procedure is based on the clinical knowledge that every attempt at stretching a stiff joint due to arthritis is followed by a varying degree of reaction. In the case of ordinary periarticular adhesions, either capsular or extracapsular, such reaction is of no great account, and we ruthlessly break such adhesions, and follow this up with massage and exercise. If the stiffness is due to changes in the synovial membrane, the cartilage, or the bone, the greatest care is needed. Given a case, then, which has run a non-destructive course, and which possesses, say, 20° of movement, we mould an angular splint of 30°, and lightly bandage the limb to it. In a day or two we shall have increased the flexion of the knee from 20° to 30°, and the knee should be kept for a week or so resting in its new position. The splint should then be removed for certain hours, and if in a few days the patient has made a permanent gain of 10° and possesses a range of 30° instead of that of 20°, we can proceed on similar lines to the acquisition of more. By this experiment we first of all stretch tissues, and by resting the limb we combat the reaction. The recognition of this principle, which is not referred to in textbooks, is of great practical value. So often cases come before us of whose early history we know nothing; the knees are stiff, or nearly so, and the patients clamour for movement. By this graduated scheme we can find out without injury whether a mobile joint is procurable or not.

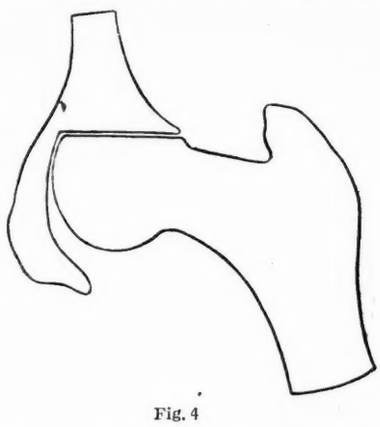

Fig. 4

In firm fibrous or bony ankylosis of the knee, with or without lateral deviation, the operation of choice is the removal of a wedge so shaped that most of it is derived from the femur, and only enough removed to bring the tibia into correct apposition with the femur, the limb being in a perfectly straight line. If this be accurately done, the subsequent treatment is easy, as the bones remain in excellent apposition with but little extraneous support.

I make a V-shaped incision over the joint. The knife is entered at a point about 4 in. above and 1 in. behind

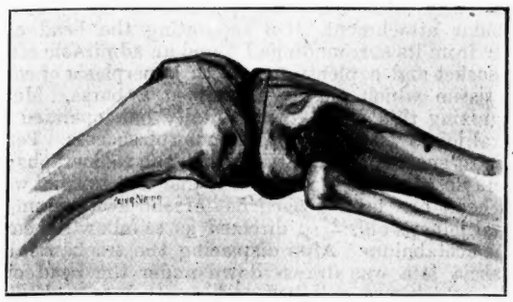

Fig. 5.

the adductor tubercle, and it is prolonged downwards in a straight line till the upper margin of the tubercle of the tibia is reached. The incision is here brought horizontally across the front of the limb, and then curved upwards on the outer side of the joint to a corresponding point to that on the inner side. If one decides to utilize the patella, the original incision is carried straightway through the infrapatellar tendon, and the whole flap, including the patella, is turned up. The articular surface of the patella may be adherent to that of the femur, and in this case it must be detached with a chisel. I now proceed to remove a small wedge, mainly from the femur, extending only four-fifths through the thickness of the bone (Fig. 5). This enables me to flex the joint acutely by fracture, as it is not advisable—indeed, it is exceedingly dangerous—to attempt to saw completely through the bone. Often there is a displacement backwards of the tibia, and if an attempt be made to saw right through the bone the popliteal vessels are in jeopardy. This accident has occurred to very careful surgeons. It can always be avoided by making the apex of the sawn edges converge half an inch or more in front of the posterior surface of the bone. The joint is now completely flexed and the fractured portions of bone are trimmed by saw or chisel (Fig. 6). In removing the wedge it is essential to remove as little bone as possible from the tibia, a thin slice at right angles to the shaft being all that is required.

Fig. 6.

It is best not to remove too much bone from the femur at one saw cut, but rather to take away thin slices to enable one to see that the juxtaposition of the two sawn surfaces is perfect. This perfect apposition is very necessary, as it lightens responsibility in after-treatment, there being little or no tendency for malposition to occur. If too much bone is removed anteriorly, genu recurvatum and stretching of the popliteal vessels results; if the apposition is deficient posteriorly, the pedestal of support is weakened and again the vessels are strained.

If there has been acute flexion, it is often well, after removing all the bone necessary to restoration of symmetry, to keep the limb for the first few days slightly flexed in order to avoid strain on the popliteal vessels. Apparently, very slight stretching will produce serious trophic disturbance. If the patella is utilized, a thin section of bone is removed from its articular surface, and a portion of the anterior surfaces of femur and tibia is prepared for its reception. Cases in which both hips are ankylosed, and in addition flexed and adducted, often occur. It may then be necessary on the one side to perform osteotomy, and on the other pseudarthrosis. The favourite operation is known as Gant's osteotomy, which involves section below the lesser trochanter. Although in Gant's operation the section cannot be interfered with by the shortened psoas and iliacus, I have found that in cases of right-angled deformity of the hip the upper part of the femur left fixed after Gant's incision has an ugly way of encroaching upon Scarpa's triangle.

With a view of not merely rectifying a flexion angle which has been the generally ascribed object of a femoral osteotomy, but with the intention of lessening or obliterating adduction with pelvic tilting (Fig. 7), I make my incision obliquely through or by the side of the great trochanter. This often involved hard work because of the thickness and sclerosed condition of the bone. The work is much facilitated by having a small knob on the end of the saw, such as one which Weiss has made for me (Fig. 8). One can saw through the bone with much energy when there is no danger of either transfixion or of losing one's place. It is better, where practicable, to saw completely through the bone rather than a certain distance, and I prefer going through the trochanter because of extra callus exudation, as an ununited fracture will frustrate the object of the operation. The adductors are next subcutaneously divided, and, in the case of youth or adult, traction is applied by means of pulleys. Very often 1 in. or 1½ in. may be gained by this traction, and in this way some of the shortening of actual displacement may be combated. The leg, still fully extended, is placed in a position of abduction, which varies with the degree of pelvic tilting (Fig. 7). The greater the tilting the greater the abduction should be. The pelvis on the sound side is fixed and the abduction splint is applied, and extension and abduction are maintained. Seven or eight weeks are allowed to elapse—until, in fact, bony union is completed with the limb in abduction and at an angle with the body (Fig. 7).

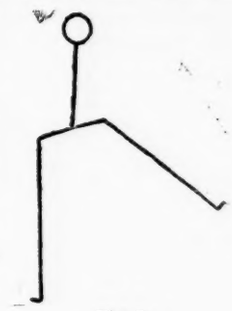

Fig. 7.

Fig. 8.

It is now to be noted that the length of the limbs may be equalized in one of two ways, or by a combination of both ways—either by lessening the practical length of the sound limb, or by increasing that of the short one. By osteotomy and extension the leg is actually lengthened, and by the osseous union of the femur in abduction with the pelvis the elevation of the pelvis on the opposite side is effected. With an outstretched thigh in one piece with the trunk it is clear that the limb can only be adducted at the cost of elevating the pelvis on the sound side, and in this way several inches of shortening may be remedied.

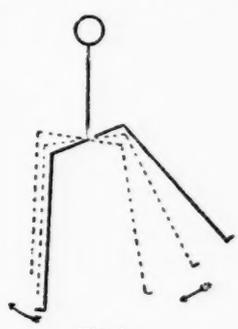

Fig. 9.

PSEUDARTHROSIS BY OPERATIVE PROCEDURES.

Surgeons have for nearly one hundred years endeavoured to bring about the formation of movable in the place of fixed joints. Barton of Philadelphia first endeavoured to overcome flexion of the hip by means of osteotomy, and tried to avoid union of the fragments by passive movements. Similar efforts were made in the temporo-maxillary joint by division or removal of bone and the interposition of foreign bodies. Gluck of Berlin, over twenty years ago, with great ingenuity introduced various ivory joints after removal of diseased ones, and some patients retained these foreign bodies for many months; ultimately, however, they suffered extrusion. I have on nearly seventy occasions, with varying success, endeavoured to bring about movement in ankylosed hips, mainly by removal of the head, neck, and trochanter, by interposition of foreign bodies between the acetabulum and shaft, and later by the method I described when dealing with rheumatoid arthritis of the hip—malus coxae senile.

In 1895 and following years, after exsection of the neck of the femur and sometimes the neck and trochanter, I surrounded one or both ends of the bone with gold foil, in order to prevent adhesion of the surfaces. Whatever available soft structure I could safely interpose (and this was generally muscle), I did, and in a certain proportion of cases very gratifying results were obtained. In some, however—generally in those cases in which little bone was removed—stiffness resulted. In others the joint remained too flail-like for serious work, but in practically all great improvement on the original condition was obtained. Few cases so operated upon complained of serious pain, but often of an aching which only occurred at intervals. Where much bone was removed, the walk sometimes resembled that of congenital dislocation, but in no instance did I observe the development of lordosis. In later operations I confined myself to removal of the upper part of the femur, sometimes including the trochanter, and added the interposition of muscular tissue alone, such as was described later by Nélaton. Since then my results have been more uniformly reliable.

The idea of interposing hyaline cartilage or imitation of normal joint surfaces originated with Weglowski, and was employed by Lexer, who, in a case of synostosis of the elbow after the removal of superfluous bone, took two pieces of cartilage from the sixth and seventh ribs, and interposed them in such a manner that the perichondrium came in contact with the raw surface of the humerus. The patient died in a few weeks from pneumonia. When the joint was investigated, it was seen that the perichondrial side of the cartilage discs had become firmly attached to the humerus. At the margins the cartilage decreased, to merge without distinct boundaries with the surface of the bone. The functional result was also promising, as the patient could flex and extend his joint 60° without interfering with supination or pronation. This represented the interposition of cartilage after the removal of half, not the whole, joint.

Murphy of Chicago, in a most interesting communication, advocates the interposition of a pad of fat and fascia, and has reported some interesting results. He argues that fat tissue easily changes to connective tissue, and that hygromata or bursae are the result of a degenerative or absorptive process in fatty tissue with hyperplasia of the connective tissue element. The fluid in the centre is the liquefaction of hypertrophied connective tissue. These views he utilizes in his efforts to produce movable joints, and he lays down the law that the aponeurosis used in the construction of artificial joints should have in it a considerable quantity of fatty tissue, which, when subjected to pressure, forms a bursa to take the place of a synovial membrane. We know that in old ununited fractures in the shafts of the long bones the presence of the false joint or interosseous sac is evidence of this pathological condition, and it is still further borne out by a series of experiments performed on animals. One of Murphy's experiments may be related.

The cartilage was removed from the head of the femur of a big dog and the acetabulum gouged down to the bone. A large flap of fascia lata, including fat, was sutured round the neck of the femur so that the muscular surface of the fascia lined the inner surface of the acetabulum. The dog was killed in four months, and passive movement was found to be free in all directions. On dissecting the joint there was revealed, interposed between the upper extremity of the femur and the acetabulum, a small sac with a smooth lining. It contained some slightly turbid sticky fluid. Its total surface was about that of the normal acetabulum cavity. The end of the shaft of the femur where the cartilage had been removed was covered by the newly-formed synovial endothelial lined membrane. Sections from the sac wall showed on the inner surface a well-formed endothelial lining.

Many years ago in an adult I cut down upon a dislocated hip of two years' standing which had given rise to serious inconvenience. My motive was to remove the head and as much of the neck of the femur as possible consistently with the least possible interference with muscular attachment. On separating the head of the femur from its surroundings I found an admirable attempt at a socket and a plentiful smooth hyperplasia of connective tissue which closely resembled a bursa. Murphy, recognizing this fact, experimentally has operated upon several joints with a varying amount of success. Perhaps the most successful is that in which the radiographs show an ankylosed septic hip indirectly due to a gunshot wound. The head has been gouged out of the acetabulum by a curved joiner's chisel so directed as to follow the contour of the acetabulum. After displacing the trochanter a flap of fascia lata was drawn down under the head of the femur, which was chiselled and curetted to make it look as normal as possible, and carefully fitted into the acetabulum cavity to form a complete lining for it. The under surface of the flap, ½ in. from the edge, was sutured to the joint capsule around the acetabular margin with interrupted catgut sutures to secure it and prevent its displacement subsequently. The result of this case was most encouraging, as Dr. Murphy tells us that the motion in the hip is normal and free.

These fascial flap operations are available in the case of the lower jaw, hip, shoulder, elbow, and knee. Although as early as 1895 I had interposed flaps in an endeavour to produce movement in old ankylosed hips, to Murphy undoubtedly belongs the credit of first making an attempt at the restoration of a joint which should approach the normal in appearance and function, and of drawing attention to the value of flap and fascia as a lining to a joint because of its hygromatous transformation. Murphy first performed his operation in 1901. His operation, however, must have only a very limited scope, for it is rare, in cases in which bony ankylosis has resulted, to find hips which can be whittled into shape. The head is usually absorbed and the neck has travelled a varying distance above the acetabulum. The difficulty of bringing such femora, excepting in the case of children, into an approximately normal position, is often quite insurmountable, while to retain them there would be beyond our power. In quite a number of cases the neck is ankylosed to the ilium two or three inches above the joint, and I know from experience that the application of pulleys will made no appreciable difference in the length of such limbs.

Such cases demand the free removal of bone, as in the following case:

A lady, 36 years old, was afflicted with a shortened, painful, flexed, and adducted hip representing about 6 in. of practical shortening.

The first operation performed was a transtrochanteric osteotomy, and the limb was placed, as I have before explained, in an abducted position. In this way I was able to reduce the practical shortening to 2 in. by correcting the pelvic obliquity.

The second operation took place twelve months later, and consisted in removing part of the trochanter and neck and interposing a muscular flap. She was able to get on to a pony a month after operation, on a hunter in six weeks, and took a jump in the seventh week. She is on her feet most of the day, rides often, and can walk long distances. Such results are possible, provided care be taken to avoid bony union.

I may be allowed to relate a case which should encourage us in a more radical plan of campaign. It belonged to a group of infective disease, often called chronic rheumatism.

A woman, aged 30, presented two acutely flexed hips and knees, and one ankle in bony fixation. The joints stiffened with very acute symptoms following typhoid fever. When I saw her some five years later the left hip lay upon the abdomen bound down by fibrous ankylosis, the right was ankylosed with 90° of flexion. Both knees were badly flexed and fixed, while the left ankle, synostosed in extreme equino-varus, looked glazed. No attempt at walking was made, even by the aid of crutches.

Within four months I operated upon her five times. The bony ankylosed ankle was first straightened by the removal of a large wedge with its base obliquely outwards. Next a wedge was removed from the left knee; then pseudarthrosis of the left hip by removal of trochanter and neck and muscular interposition was performed. The right knee was next straightened by a similar operation to that performed on the other knee, and finally a transtrochanteric osteotomy of the right femur completed the scheme.

All the wounds healed by primary union, and in less than six months after the last operation the patient was walking short distances painlessly, only aided by two sticks.

I mention such cases in order that it may be realized that it is a mistake to strike a minor key. The weakest of such cripples—rejected, helpless, and hopeless—seem to be specially endowed with strength when they see salvation at hand.

There is still another operation to which I would draw attention, and that is the transplantation of whole joints in the place of exsected and diseased ones. Only a few months have passed since this operation was performed, and, as we know in the case of Gluck's ivory joints, some of which remained *in situ* for over twelve months and subsequently become extruded, it is necessary to withhold our judgement. The experiment is extremely interesting, and is an eloquent tribute to surgical ambition. Already this operation has been performed on five or six occasions, and I will describe the transposition by Lexer of a complete knee-joint.

The patient, a girl aged 18 years, was the subject of ankylosis of the knee, the result of a purulent osteomyelitis of the femur. The joint was acutely flexed. An anterior flap incision was adopted with its base above the femoral condyles and its lower border below the tuberosity of the tibia. The flap included all the soft parts—the detached ligament of the patella, the remainder of the joint capsule, and the ligament, as well as the muscular attachments. The patella which was chiselled from the femur formed also part of the flap. All lateral and posterior attachments were carefully removed from the bone, and remained in their entirety attached to the popliteal structures. Simultaneously an amputation was performed through the thigh in a patient suffering from senile gangrene. The knee-joint, including the semilunar cartilages, the epiphyses, and the crucial ligaments was removed from the amputated limb and transplanted into the gap formed by the exsection of the girl's knee. Some trimming was necessary to make the parts fit, and the ligament of the patella was fixed to the tubercle of the tibia. The femoral and tibial epiphyseal portions were fixed by nails. Lexer, however, omitted to cover the new patellar surfaces which become united with the femur; months later it was necessary to cut down and remove the patella. This gave an opportunity for the examination of the epiphyses, which were found firmly united. The union was so complete that it did not allow a trace of motion. The semilunar cartilage and crucial ligaments were preserved; the articular cartilages were smooth without fibrillation. Around the joint a connective tissue callus had formed, containing the remains of ligaments and capsule, as well as tendons. The question naturally arose, Had the joint obtained life? A spicule of bone was removed containing a piece of cartilage, the spongy portion of the epiphysis, and the connexion of this with the old tibia, and on the outside the periosteal covering of the transplanted bone. Microscopic examination revealed firm fibrous and bony union, also new vessels and bone lamellae in the medullary spaces.

In another case the upper third of the tibia was exsected for an endosteal sarcoma and a transplantation made to fit the gap. Union occurred here also.

It is premature to discuss the subsequent history at so short a date. It may be mentioned, however, that both limbs could bear the weight of the body during standing and walking.

It will be of interest to watch the later progress of these and similar cases and to study the physiological questions involved. Can a joint transplanted live indefinitely, perform its natural functions, and alter so little in form and structure as to adapt itself to weight and function?

BY the death of Miss Mary Hezmalhalch, of Fellisclife, Yorkshire, certain dispositions in the will of her brother Joseph, who died some thirteen years ago, have now become operative. The Harrogate Bath Hospital, the Yorkshire Deaf and Dumb Institution, the Leeds Deaf and Dumb Institution, and the Harrogate Cottage Hospital each receive a sum of £1,000, and the Leeds Hospital for Women and Children half that sum. The principal beneficiaries, however, are Leeds Infirmary and Leeds Dispensary. The former receives three-fourths of the residue of the estate, and the latter the remainder. Such residue seems likely to amount to a sum of over £25,000.

A Clinical Lecture

ON

ARTHROTOMY OF THE KNEE

FOR THE

REMOVAL OF INFLAMED SYNOVIAL FRINGES AND OF THE PADS OF MALGAIGNE.

DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL.

BY C. B. LOCKWOOD, F.R.C.S.,
SURGEON TO THE HOSPITAL.

MY lecture to-day is based upon operations performed for the removal of inflamed synovial fringes from the knee joint and of certain pads of fat, which have hitherto received little attention. Ordinary cases of slipped, dislocated, or broken fibro-cartilages will not be referred to. I cannot help regretting that, owing to the calls upon my time, I have been unable to read the later literature on the subject, and therefore my remarks will be founded upon my own experience, which, after all, is for you the best and most instructive.

I advise you to be very cautious in making statements as to what you think has happened within an injured knee, but this advice, of course, applies to everything you are unable to see. As a rule, inflamed and enlarged synovial fringes are mistaken for some fault in the fibro-cartilages or for a loose body within the joint. The reasons for this are that clinically there is a close resemblance. The enlarged synovial fringes are apt to get between the articular surfaces and trip the patient up, and, moreover, as you are aware, a slipped, dislocated, or broken fibro-cartilage is usually associated with pain at the inner or outer side of the knee, and pressure over the inner or outer fibro-cartilage is accompanied by tenderness. When you remember how close the ligamenta alaria, usually at fault, are to the fibro-cartilages, it is easy to understand that pain or tenderness felt in them is usually attributed to the former, but, as a rule, the situation and extent of the tenderness ought to put you on your guard. The pain and tenderness of inflamed alarial fringes is usually felt close to the edge of the ligamentum patellae. The following is a case in point:

A middle-aged gentleman, who, by-the-by, was very gouty, was sent with the usual history of having dislocated his internal semilunar fibro-cartilage. But pressure on the edge of the fibro-cartilage in front of the internal lateral ligament failed to elicit the usual pain or tenderness. On the other hand, rather acute pain and tenderness were to be found internal to the ligamentum patellae and in the situation of the internal alarial ligament. There was, moreover, a slight swelling at that spot. When the joint was opened by an internal vertical incision, the internal alarial ligament was found to be inflamed, swollen, and elongated, and situated between the internal condyle of the femur and the tibia, so that it could be easily squeezed. This explained the pain which the patient felt when he extended the tibia on the femur, and which entirely disappeared after removal of the inflamed fringes and of some of the fat. One would prefer not to perform arthrotomy upon gouty patients, but in this instance the pain and discomfort were spoiling the patient's life and preventing him from doing many things which he wished to do.

The following is an instance in which inflamed synovial fringes were mistaken for a loose body in the knee-joint: A footman was suddenly tripped up by something within the knee-joint. This occurred more than once, and ended in him falling downstairs whilst carrying a tray. When he first came under observation he had synovitis of the knee, with a moderate amount of fluid in the joint. He gave a most graphic account of a loose body which could be felt sometimes at the inner and sometimes at the outer side of the knee, and before the operation this is said to have been felt by the House-Surgeon and others. However, when the joint was opened, some fluid escaped, and although the joint, and all its pouches, was explored over and over again with a bullet scoop, no loose body could be discovered. Whilst making this exploration I could not help being struck by the extraordinary extent of the synovial pouches. Those of the vasti reached at least

one-third up the thigh; those behind the condyles, too, were very extensive, and also the one along the tendon of the popliteus. Although no loose body was discovered, the ligamenta alaria were inflamed and enlarged, so that they could easily have intruded themselves between the articular surfaces. Therefore they were freely removed.

It is not probable that a loose body was overlooked, because the patient came again more than eighteen months after the arthrotomy. His knee had given him no further trouble, and he wished to leave off an apparatus which he had been advised to wear, because we feared that after the synovitis he might have had some relaxation of ligaments.

I propose now to tell you some of the causes of inflammatory enlargements of the synovial fringes, and traumatism should, I think, be put first.

For instance, a young woman wrenched her right knee whilst mounting a horse. This was followed by an attack of synovitis, and afterwards the knee used suddenly to give way. On each occasion the giving way was followed by synovitis. I saw her soon after one of these accidents, and in addition to the swelling of the knee-joint there was distinct bruising at the inner side of the ligamentum patellae. The knee-joint was explored by the usual vertical incision, and the inflamed, enlarged, and elongated ligamentum alaria was pulled out from between the condyle of the femur and the tibia, and removed. The history of this case is clear. Sudden nipping of the alarial fringe between the femur and tibia, an effusion of blood into it, clotting of the blood, and then an attack of inflammation such as is always caused by the presence of a clot in any part of the body. The term "sprain" is to my mind vague and unscientific, but I suppose that this is what happens when a person is said to have sprained a joint. An injury to a part of the synovial membrane, to the capsule of the joint, or to one of its ligaments, causes an effusion of blood, clotting of the blood, and then an attack of inflammation. If in cases of so-called sprain you make a diligent search, you will as a rule discover some bruising. It is to be remembered, however, that the bruise may not appear because the blood may be within the capsule of the joint, or beneath the deep fascia of the limb. In a little while I shall refer to a case in which I could not help suspecting that the inflammatory enlargements of synovial fringes had been caused by the presence of tubercle bacilli. The patient had what I believed to be tuberculous scars upon the neck. There was a strong history of tubercle in his family, but, although the most diligent search was made, we could not obtain scientific evidence of the presence of tubercle bacilli. As you are aware, in slight and very chronic cases of tubercle, it is often most difficult to discover the microbe.

We are on more solid ground when we attribute the inflammatory enlargements of synovial fringes to the presence of loose bodies within the joint. For instance, a man aged 30 came with considerable effusion within his knee-joint. He said that this had come on after a fall. In spite of rest and the usual treatment the effusion persisted, but at last a loose body was discovered slipping about within the joint. When the joint was opened a loose cartilaginous body was removed, and a second one was found attached to the inner side of the patella by a short stalk. The synovial fringes were inflamed and considerably enlarged, so that as a matter of precaution they were excised. The result was entirely satisfactory.

In another patient the clinical symptoms led to the belief that the patient had displaced or broken the external fibro-cartilage of his left knee. The fibro-cartilage was found detached and displaced, and in addition the alarial fringes were inflamed and considerably elongated. They were taken away, because it seemed likely that they could intrude between the articular surfaces. Presently I shall mention cases in which the synovial fringes were inflamed and enlarged in cases of osteo-arthritis, and I should not dismiss from my mind the possibility of them becoming enlarged in sarcoma of the synovial membrane. I have only seen two examples of this very rare disease. Finally, the synovial fringes become gradually enlarged in that curious disease, villous synovitis. I remember opening the knee-joint of a woman by a transverse incision through the ligamentum patellae and clearing it of quantities of fringes, which were enlarged, and looked like mucous polyps of the nose.

I now come to the second part of this lecture, which relates to inflammation and enlargements of the pads of Malgaigne. Eight years ago I began a paper on this subject, but I regret not to have had leisure to finish it or to dip deeper into the subject. I have long been aware of the existence of small adipose pads immediately above the articular surface of the femur and on either side of the upper end of the patella. I suppose they may afford some support to the patella in its highest position during the extension of the leg. I was long in finding any reference in medical literature to these pads of fat, which I had on more than one occasion mistaken for a loose body within the joint; but at last I have found that Tillaux,[1] in his admirable treatise on topographical anatomy said they had been described by that excellent surgeon Malgaigne. Malgaigne[2] gives a very clear description of these pads of fat in his work on surgical anatomy published in 1859, and he speaks of them as "*mon flocon adipeux*," and I venture to suggest that in future they be called the pads of Malgaigne. What he says about them is most interesting. He remarks that for some time Marjolin had noticed a tumour at the inner side of the knee in cases of hydrarthrosis. This tumour was quite distinct, circumscribed, rolled under the finger, and had in fact all the characteristics of a foreign body in the joint, except that it was always found in the same spot in spite of its apparent mobility. Clearly Malgaigne was well aware that this pad of fat might lead to error, and indeed he goes on to say that clever surgeons had thought it was a foreign body, and had wished to open the joint in order to extract it—a dangerous proceeding in those days. Thus Malgaigne came to the conclusion, after palpating his own knees, Marjolin's knees, and the knees of his pupils and patients, that every one possesses these little false tumours, also that their size depended upon the state of the joint. Inflammation caused them to swell, but they shrank again when it subsided.

I see that Mr. Henry Morris[3] in his excellent work on the *Anatomy of the Joints* depicts these pads in one of his plates.

The authors of *Quain's Anatomy* say that folds of synovial membrane containing fat "fill the angular spaces left by the separation of the articular surfaces in different positions of the joints, and similar adipose folds or pads are found within the capsule, corresponding to hollows formed by the bones in the neighbourhood of the articular surfaces." Sir George Humphry, who wrote so admirably upon the human skeleton and joints, seems to have been unaware of the existence of these pads of Malgaigne.

I will now narrate some of the cases in which I have met with an enlargement of the pads of Malgaigne during operations upon the knee.

Some years ago I opened the knee-joint of an elderly lady to remove a number of foreign bodies which could be felt around the patella and around the articular surfaces of the femur. She had advanced osteo-arthritis of the knee, and one would not willingly have performed an operation upon her, but unfortunately these enlarged fringes got between the articular surfaces and tripped her up. Once this accident occurred whilst she was crossing a busy thoroughfare, and she fell down and was nearly run over by an omnibus. Clearly, as apparatuses were of no avail, she was condemned to remain at home unless something was done. And here I may advise you always to try and have a good reason before you perform arthrotomy. These are some of the reasons which have guided me:

A gentleman was crossing the street when his inner fibro-cartilage slipped, and he fell down and was nearly run over. Another was canoeing in the Fraser River when he was turned out and had to swim. The internal fibro-cartilage of his knee slipped out again, locked his knee, and he was nearly drowned. An engineer was walking along a railway bridge when his internal fibro-cartilage slipped out and locked his leg. To his horror he heard a train approaching, and with difficulty he managed to escape.

Now to return to the lady with an enlarged pad of Malgaigne. An incision was made at the inner side of the ligamentum patellae and two cartilaginous fringes were taken away; but, in addition to these, a loose body of considerable size could be felt slipping about above the trochlear surface of the femur, and just above and external

to the patella. This was cut down upon, and was found to be a pedunculated fatty tumour, attached to the front of the femur by a broad pedicle, and which had obviously originated in the external pad of Malgaigne. This polypoid piece of fat had obviously pushed the synovial membrane before it into the joint. It was so movable that it slipped away from the fingers with the characteristic suddenness of an enlarged synovial fringe or of a loose body, and it could be pushed beneath the patella. It was, however, always to be found near the same place. Its pedicle only contained minute vessels, so that no ligatures were required. One of my fears in removing these synovial fringes is lest blood should be effused into the joint. It is hardly necessary for me to repeat that, if this were the case, the blood would of necessity clot, would surely cause an attack of synovitis, and might lead to suppuration. When there is the slightest chance of such an occurrence, I do not hesitate to leave a drainage tube in the joint for forty-eight hours. The ultimate result of this operation was completely satisfactory—at all events the patient was very pleased.

I was deceived by the pad of Malgaigne in the case of a young gentleman, 21 years of age, who said that he had "sprained his right knee on various occasions whilst playing football and tennis." At the time of the accident he suddenly fell down, the knee became fixed in the half-flexed position, and was straightened with difficulty. The accident was followed by synovitis, which kept him in bed for days or weeks. As usual, his internal semilunar fibro-cartilage was supposed to have been damaged. When seen by me the movements of his knee-joint were free, but a slight swelling could be felt near the internal fibro-cartilage, and this area felt hard, and was tender. Enlarged synovial fringes could be felt over the inner condyle, and a loose body above the external condyle of the femur. On one occasion his joint "went wrong" whilst he was in bed. After that he wore a Thomas's knee splint and never moved the joint. This is the case which I have mentioned to you before, and in which there was a suspicion of tubercle, because he had scars upon his neck which were suggestive of suppuration such as occurs in tuberculous glands, and also he had a rather forbidding family history of tubercle. The knee-joint was opened by the usual internal vertical incision, and nothing could be found wrong with the internal semilunar fibro-cartilage. But the alarial fringes were greatly elongated and enlarged, some being as much as $\frac{3}{4}$ in. long. Eight were removed. Afterwards the loose body felt above the external condyle was explored by another incision, and was found to be a small lipoma projecting into the joint; this, too, was removed. As I have said, every effort was made to ascertain whether this condition was due to tubercle. The ultimate result was quite satisfactory. Perhaps one may venture to surmise that even if the condition had been tuberculous, the arthrotomy may have been as beneficial to the joint as laparotomy is in cases of tuberculous peritonitis with effusion.

Finally, I will mention the case of a young gentleman, aged 21, who on clinical grounds was thought to have displaced the internal fibro-cartilage of his knee at football. But in addition to the ordinary symptoms of an injured internal fibro-cartilage, a loose body could be felt above the external condyle of his femur and outside the patella. When the knee-joint was opened by the internal vertical incision, the internal fibro-cartilage was found to be torn off and dislocated, and was removed. Perhaps I ought to pause and tell you that, although I have made every effort, I have hardly ever succeeded in removing the posterior part of these damaged articular cartilages. I have had special levers and special scissors made and have placed the joint in all sorts of positions, but I have seldom succeeded in removing the whole cartilage. I have often wondered how other surgeons manage when they say they have removed the articular cartilage; but I have never had reason to think that the piece left behind caused the patient any trouble whatever. But to return to the case of this young man. After removal of the internal fibro-cartilage, the loose body above the external condyle was cut down upon by another incision, and was found to be a piece of fat outside the synovial membrane, but projecting into the cavity of the joint. It was taken away.

These three are the cases in which I have been deceived by inflammatory enlargement of the pads of Malgaigne.

In conclusion I wish to advise you never to minimize the dangers of arthrotomy. These dangers are three.

First of all the danger to the knee-joint, for if suppuration occurs, it may lead to destruction of cartilage, and the knee will inevitably become stiff. Next the danger to the limb, for severe and prolonged suppuration in the knee-joint may necessitate amputation. And, finally, a danger to the life of the patient, for who can with certainty guide the course of these dire forms of infection?

In the course of a long series of arthrotomies I have twice had disasters. I once, after a great deal of consideration, removed the internal semilunar fibro-cartilage of a young lady because it tripped her up, and was a source of danger to her. The operation was uncomplicated, and the patient did exceedingly well until she got a sore throat, became covered with a rash, and probably suffered from some form of scarlet fever. At this period the knee-joint became acutely inflamed, and I there and then put in a drainage tube. This was followed by some amount of suppuration within the joint, but without destruction of cartilage, and by dint of continuous massage and repeated movements we ultimately secured a perfectly movable joint, with which she could skate and dance, and, I am thankful to say, walk without a limp. And now, if you will go into Harley Ward, you will see there a man who has suppuration in his knee-joint after the removal of dislocated fibro-cartilage. He had returned from the West Coast of Africa in order to have his fibro-cartilage removed. This was necessary because it locked and prevented him from following his occupation. At the operation nothing but a pair of forceps and a pair of scissors were introduced into the joint. He immediately began to have most severe attacks of malaria, during which his temperature went up to 105° F., and everything became drenched with profuse perspiration. In spite of this his knee-joint appeared to be perfectly well, and for four days after the malaria his temperature and pulse were normal. Then the sutures were removed, and a fresh outburst of malaria occurred with acute synovitis in his knee. A drain was put into the outer side of his knee-joint, which was found to be infected with *Staphylococcus aureus*. I am thankful to say that this acutely septic condition has now subsided, and I hope and trust that he will get off as well as the young lady to whom I have referred. But who can say that his clean operation cases will never be marred by these disasters?

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[1] Tillaux. *Traité d'anatomie topographique*, Paris, 1897, fig. 287, p. 1054. [2] *Traité d'anatomie chirurgicale*, second edition, Paris, 1859, vol. ii, p. 803 et seq. [3] *The Anatomy of the Joints of Man*, by Henry Morris, London, 1879, plate xxxii, p. 350.

THE United States Congress has allocated the sum of £5,000 for the expenses of the Congress of Hygiene and Demography, which is to be held in Washington next year. All the nations of the world have been invited to send delegates.

A REMARKABLE case of poisoning by the common honeysuckle of our hedgerows (*Lonicera periclymenum*) has been reported (*Nordisk medicinisk Arkiv*) by Dr. O. Hanssen of Christiania. A child aged 2 was playing with honeysuckle flowers at 11 one morning. At noon, as he seemed sleepy and tired, he was put to bed. An hour later he awoke with a flushed face, and asked for a drink; immediately after he fell into a comatose condition, with his eyes half open; from time to time his limbs were agitated by clonic spasm. At 4 p.m. his bowels acted, and in the stool two honeysuckle flowers were seen. In the evening he had a sharp attack of diarrhoea; the spasms became stronger and more frequent, affecting all four limbs, and on one occasion there was well-marked opisthotonos. His expression was placid but fixed, his face livid; the pulse and respiration were quickened. At 8 p.m. the spasms diminished, and copious perspiration broke out; the child fell asleep, and remained sleeping all night. The next day he was peevish and depressed, had no appetite, and the stools were irregular, but he made a good recovery. The *Pharmacopée Universelle* states that the stalks, leaves, and flowers of *Lonicera periclymenum* have been used in medicine as a slight astringent and tonic, and that it was formerly used as a constituent of gargles. A formula for a syrup (syrupus caprifolii) is given, made by infusing 4 lb. of fresh petals in 8 lb. of boiling water, to which, after filtering, double the quantity of white sugar is to be added.

SOME ASPECTS OF LIFE INSURANCE FROM THE STANDPOINT OF THE MEDICAL EXAMINER AND THE AGENT.*

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MR. PRESIDENT AND GENTLEMEN,—To-night we are to consider some aspects of life insurance, and I intend to discuss some of the practical points of the medical examination as they concern the doctor, the agent, and the examinee.

Medical examiners and life agents have one strong link in common. They both come into personal communication with the individual who, as a rule, desires to insure his life; and in this relationship both must use tact and discretion, and both gain an insight into human nature.

As regards the medical examiners, every case ought to be handled with tact, discretion, and intuition. Tact should be used to place the examinee at once at his ease and diminish any nervousness or anxiety; and this is best done by adopting a matter-of-fact style; it is remarkable how a man or woman who has been very nervous in anticipating the ordeal, becomes quite calm when in the doctor's room, and if handled judiciously a complete examination is usually willingly sanctioned. Intuition is required in order, with as little delay as possible, to see the line of weakness in the applicant. The doctor must gauge the constitution and habits of life by a quick inspection aided by a few judicious questions added to those which are usually present in the report. For instance, all medical examiners have met the over-conscientious individual who, though to all appearances is "in the pink of condition," states that he has had rheumatism, a fit fifteen years ago, and a severe attack of the liver. On inquiry the rheumatism resolves itself into muscular stiffness after a long day's shooting or golf, the fit into a faint brought on by some unusually disagreeable sight or an injury, and the attack of the liver into a bilious attack which never confined him to the house. A man of this type recently would not rest satisfied till I had recorded all the list he gave me of most trifling ailments which had left his health unimpaired—rheumatism, faints, and cough, were amongst his list. A short note at the end of the report to the medical referee explained their entry. On the other hand, there is the man who assures the doctor "he has never had a day's illness in his life." He must be tackled more carefully and reminded that most men have had influenza. Has he had pneumonia, typhoid, or bronchitis, or an accident of any kind? and then he generally remembers several weeks of disablement. There are a few occupations—three I may specify—which entail more strict examination.

1. The person who deals in alcohol in any way. A few apparently casual questions as to habits and a careful physical examination will soon confirm or otherwise the statements he makes. As a rule, publicans, hotel keepers, etc., are bad lives; but I have known several very respectable ones—some even teetotalers. Most companies rate them up 10s. to £2 per cent., some refuse them altogether.

2. Commercial travellers too, as a class, are not good lives, though there is no doubt that there is now much less drinking "on the road" than formerly.

3. The third occupation which requires the careful investigation of the examiner is that of the man who replies, "Oh, I'm a gentleman." There is no better or healthier life than that of the country gentleman as we understand it—the man who hunts two or three times a week, looks after his estate, and is a justice of the peace for his county. But these people do not usually speak of themselves as such. The style of "gentleman" is often assumed by a retired innkeeper, "a man about town," or an office boy out of work.[1] Some time ago I examined a "gentleman" who lived in a very healthy district, but was too stout and flabby for a man of his age. When I asked him how he spent his days, he replied that he was very fond of the country and took long walks, to which I remarked that I was surprised he did not reduce his weight. He said all his family were stout and heavy. On investigation this "gentleman" was found to spend his time walking from one inn or hotel to another, occupying the rest of his time in the taproom drinking beer. Needless to say he was not accepted. In contrast to this case I had the greatest difficulty to get a first-class English office to accept a bona-fide gentleman because he lacked an occupation.

Form of Medical Reports.

The forms of the medical reports which the various companies supply differ in length enormously. Some would appear too long and others too short. Personally I do not consider any report too long provided the company pays the regulation fee of £1 1s., and no company could expect a skilled medical man to fill up a long report like those of some of the American companies without paying that fee. In support of my contention that no medical reports are too long, every particular with regard to the applicant is valuable to the company. For instance, one of the longest medical reports contains the question, "Has any member of your household suffered from consumption or tuberculosis during the past year?" When examining a man some little time ago, in answer to that question, he had to admit his wife was suffering from undoubted consumption. Though I do not necessarily object to the length of a medical report, there are many ways in which some of them might be improved, and I would urge a greater degree of uniformity. There is no reason why a board of medical examiners and referees could not be appointed to meet and draft a more uniform set of questions. The improvements I would suggest are:

1. Deleting from all reports requests for the names, dates of death, and places of death, of parents, brothers, and sisters who are dead. If these details are required in any particular case, surely the agent could get them from the family Bible at the leisure of the applicant and himself. They are then far more likely to be correctly answered than when asked for by the doctor and given on the spur of the moment.

2. In some medical reports the questions are framed so that the answers in first-class healthy lives change from the affirmative to the negative, and vice versa, when by a slight difference in the construction of the questions there would be no such change, and thereby the tendency to clerical errors would be greatly diminished. The uniformity of report which I have pleaded would also tend greatly to diminish clerical errors by medical examiners. Of course, clerical errors should never occur, but I understand they do occur.

3. All reports should have a blank space, in which the examiner can insert any special "remarks," or make any comments or explanation that may be necessary in any exceptional case.

Classification of Lives.

The method of grouping lives varies in different companies as much as the medical forms. Here again I would suggest uniformity—excepting, of course, those companies which only accept first-class lives. The grouping I would propose would be as follows:

CLASS A.

1. *Unexceptional Lives.*—Those with excellent family history, healthy occupation, regular habits, good physique, and normal healthy organs.
2. *First-class Lives.*—Good average lives, presenting unfavourable circumstances, but of so slight a nature as to form no objection to insurance at ordinary rates.

CLASS B.

1. *Second-class Lives*, where, owing to bad family history or some physical defect, an extra is required, or a short-term endowment policy only can be granted.
2. Cases which require postponement for one, two, or three years.

CLASS C.

Uninsurable Lives—that is, Bad Lives.—Certain types of heart disease, kidney disease, diabetes, phthisis, etc.

Unexceptional lives, Class A (1), already appear in some companies, and it is remarkable how few lives can be honestly grouped under this heading. Such is the class Sir James Barr recommended should have special terms.[2] I would point out, however, that they are just as liable to death by accident and an acute infectious disease. As regards second-class lives I am confident that there are a number which by judicious rating up can be accepted

*Read before the Insurance Institute of Liverpool on November 11th, 1908.

without any undue risk. I am sure that some cases are refused which might with advantage be placed in this class. I will specify them later.

Certain companies accept lives under certain conditions without medical examination. Such a principle is greatly to be deprecated, for it is placing a premium on fraud. As all insurance men know, as soon as a person is aware that he has anything wrong with himself he immediately wishes to insure his life, and if he knows he is seriously damaged, at once he thinks of the non-medical examination policy. Then one of three things happens:

1. If the applicant be honest he has to answer truthfully a long list of questions, some of which pick out his weak spot, and he goes away grievously disappointed.
2. If dishonest, he may, by answering incorrectly, defraud the company. Consider the temptation to act in this way, for a young man with a wife and family, who is attacked, say, with consumption. He may answer all but one or two questions with absolute truth, and you must remember the public class insurance companies and railway companies together in the same category—that is, rich corporations which may be defrauded without immorality.
3. If the man is diseased in imagination alone, or is only morally afraid of the medical examination, then the insurance company is giving him a good but expensive policy.

Several companies which issue such policies require the applicant "to pass the doctor" if some of the many questions in the proposal are not answered to their satisfaction. In this way I have seen several applicants, and from a healthy or an insurance point of view they have been a sorry crowd. Five cases stand out pre-eminently in my memory: A case of advanced consumption, a man suffering from diabetes mellitus, another case of phthisis, a man with a very bad family history, and a case of uninsurable heart disease.

A schoolmaster, who had previously consulted me for heart disease, once wrote asking whether he should try to insure under a medical or non-medical examination policy. I advised the former, and told him he must expect to be rated up.

With regard to second-class lives, companies reject in many instances some cases which it would pay them to take with an extra added to the premium. Special arrangements might be made for such individuals. The responsibility of advising the acceptance of such lives should not be left with every medical examiner, but each company could have assistant referees in the large centres—that is, physicians who are daily accustomed to seeing such cases in their practice and at their hospitals, and these assistant referees could give a further report after examining the applicant, on which the final decision should rest. The types of case I refer to are some of functional albuminuria, some forms of heart disease with well-marked compensation, applicants who have had syphilis, etc. I could enumerate several instances of men who have been thus affected who have been refused, though recommended as second-class lives, and who are living now, and are apparently going to live, more than ten years after having been rejected.

Medical Examinations from the Agent's Point of View.

The aspect of life insurance from the standpoint of the agent to which I shall chiefly confine myself is that of the medical examination of his client. It is very interesting to observe the different views that life men take of the medical examination. The younger men look on it with trepidation until hardened by usage, some of the older ones as a nuisance, very few cheerfully, and all as a necessary evil.

Now there are certain ways in which the agent can materially assist the medical examiner, and smooth the examination so that his client will appear in the most favourable light. The examinee should, whenever possible, be brought to be examined quietly, and not hurried. If the office is up one or more stories he should use the lift; he should be warned not to pass urine just before being examined, and it is better to have him examined just before rather than after a meal, before Christmas rather than after it, and not too soon after an illness. Some applicants are naturally rather alarmed at the idea of having to be overhauled by a medical man, who may find out something wrong of which they had no suspicion. Most of these fears can easily be allayed, and are allayed every day by insurance men, who probably know these difficulties and the way to overcome them far better than any medical examiner. I am always amused by a sportsman friend, a manager of a life office, who says to his client in a nonchalant sort of way, "Come and pass the vet.," and that matter-of-fact casual method is probably the best in most instances.

A very important aspect of the medical examination, both to the agent and often to the applicant, is promptness in obtaining the examination. This can generally be arranged satisfactorily to all concerned, especially if the agent knows the doctor's routine and his most available hours. But extraordinary circumstances do occasionally arise, and I still have lively recollections of, some years ago, going on board a steamer by the last tug, as she was steaming down the Mersey, to report on the captain, who was going abroad for twelve months. It was not till the captain assured me that he would not give his returns until I was aboard the tug again that I began the report. I also had the moral and physical support of the company's manager.

As regards the examinee, provided that he is treated with courtesy, as is invariably the case, he does not require any sympathy or condolence on having to undergo the ordeal. Nothing can be more beneficial for any man than to be overhauled thoroughly by a doctor. If he passes first class, he goes away rejoicing, and has more confidence in his constitution than before. If a flaw is detected, and he is placed in the second class or rejected, it is far better for him to be aware of the fact, and so be able to take steps to remove the defect, or at any rate to prevent its getting worse. Most men who are wise do this, and I have known candidates for insurances who have been rejected for albuminuria and other ailments, which were quite unknown to them prior to their examination, after some months' careful treatment regain normal health, and pass as first-class lives. Incredible as it may seem, other men, though vexed at not obtaining the policy, take no precautionary measures. Thus a robust man, who had had several attacks of gout, was referred for twelve months, with the understanding that, if free during that time, he would be accepted at ordinary rates; and yet, rather than submit to a somewhat restricted diet, he lived as usual, and contracted further attacks, and now is a subject of marked gout and quite uninsurable. Another man who was found to have dietetic glycosuria would not give up the habit of taking large quantities of sugar, and I should not be surprised to hear that he ultimately developes diabetes.

The medical examiner is a most important factor in your work; he is your detective who finds out the ravages of disease in your clients. I remember finding well-marked phthisis in one poor fellow who assured me that it was only a "cold on the chest," and chronic bronchitis in an older man, who told me "it was nothing, and was always present." It is interesting to note, however, that these two cases were examined at an interval of about nine years from each other and for different companies, so that agents need not be alarmed and expect that many of their cases will be rejected or rated up at present; but if modern life in the towns and cities continues in the direction of electric trams rather than walking to business, watching rather than playing football; tea, roll, and cigarettes rather than a good lunch, then we may expect more second-class lives among city men in the future.

If the medical examiner is the detective for the company in life assurance, much more so is he in examining cases for accident or sickness claims. There, instead of finding the defects as terrible as the claimant would have them to be, it is remarkable how frequently they are of a much less serious nature, and in not a few cases are so slight that they are imperceptible. Here we have the picture of the medical man trying to assure the applicant that he is quite well, and the latter endeavouring to teach the doctor that he is suffering from disease and ailments which cannot, however much investigated, be perceived. But this is a long story, and not really germane to this subject.

In conclusion, I would say that I trust this paper will not have the effect of a medical book, and alarm agents as to the state of health of their candidates. Second-class lives and rejected lives are, fortunately for them and for the country at large, few; they are exceptional cases, and they are therefore of interest to us. I am often rung up to state whether a rupture, or a previous operation for piles,

or a previous illness of some kind or other, is a bar to insurance, and it is noteworthy how almost invariably the reply is in the negative. My advice to the agent would be, if in doubt about having a case examined, "Do," and he will often be agreeably surprised.

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[1] Dr. Pye-Smith, paper on Insurance, read before Alliance Insurance Company. [2] BRITISH MEDICAL JOURNAL, 1907, vol. ii.

TWO CASES OF OSTEITIS DEFORMANS (PAGET'S DISEASE).

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OSTEITIS DEFORMANS is a sufficiently rare disease to make it worth while to report two cases in the same family which have come under my notice:

CASE I.

A man aged 56 first came under observation in April, 1907, complaining of headache and "rheumatic" pains in the limbs.

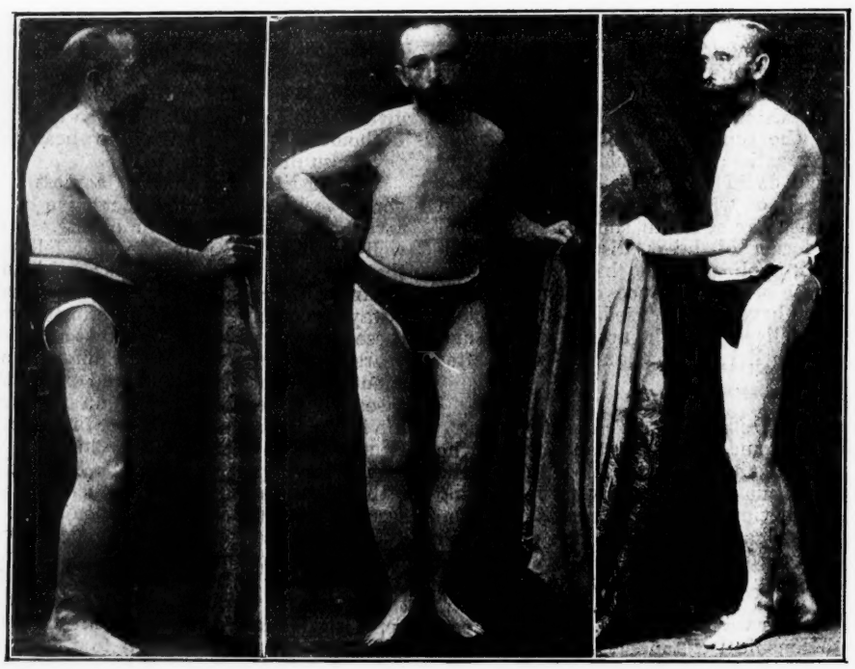
FAMILY HISTORY.

He had five children living; one died of convulsions and bronchitis in infancy. His father died at the age of 64 from a cause not known to the patient. His mother died of enlarged liver. The family history, so far as is ascertainable, is otherwise quite good, and presents no rheumatic tendencies. A brother who is suffering from the same disease in an incipient stage constitutes Case II.

PERSONAL HISTORY.

The patient, a timber sawyer by occupation, had not indulged to excess in tobacco or alcohol, and had never had syphilis or gonorrhoea. He had always enjoyed good health until the age of 40, that is, fifteen years earlier, when he had a sudden attack of acute pain in the left hip. Since then he has never been really free from pain, especially during the last ten years.

About nine years ago he was confined to bed for one month with pain in both legs; he then returned to his work, though he frequently had to sit down because of the pain. He stopped work about four years ago because of an accident, the fingers of his right hand being caught in the saw; eleven weeks elapsed before healing took place, and the first and second fingers have never been much use to him since, on account of chronic periostitis. About five or six years ago he first noticed the right leg just below the knee to be swollen, and three or four years ago he noticed the same in the left leg.



PRESENT STATE.

His general health is fairly good; he eats well and is quite intelligent, but at times very depressed. He always has pain in his legs and head. In the head the pain is usually "aching," mostly in the frontal region, but occasionally occipital. In the legs it is usually "aching" also, but at times acute, somewhat like cramp. Fleeting pains occur in other parts of the body; he cannot remain still for any length of time, as rest seems to increase the pains.

He maintains that he is worse on Sundays, as on that day he seldom goes out; on other days he takes walks in the morning and afternoon. His sleep is very disturbed, as he is frequently awakened by pains, which cause him to get out of bed and walk about the room. He has not slept for more than two hours continuously for some years. Usually he gets up at 5 a.m., as he says he cannot remain in bed any longer.

His gait is peculiar. The feet are placed far apart, the knees cannot be approximated, and he "waddles" along, but there is no real unsteadiness in the gait.

Osseous System.

His head is large; as a young man his hat was size 6¾, now size 7⅜ is too small, and he finds difficulty in getting a hat to fit him.

Head.—The measurements are: occipito-mental, chin to the most distant part of occiput, 9 in.; occipito-frontal, point of union of the supraorbital ridges to the most distant part of occiput, 8½ in.; biparietal, 6¼ in.; bitemporal, 5½ in.; glabella to occipital protuberance, 16 in.; circumference at a horizontal level immediately above the supraorbital ridges measures 24½ in.; junction of pinna and scalp over the vertex to a similar point on the opposite side, 12¾ in.; suboccipito-bregmatic, from the neck immediately below the occipital protuberance to the junction of the parietals and frontal bones, 7 in.; suboccipito-frontal, from the neck immediately below the occipital protuberance to the mid point of the junction of the frontals, 7½ in.

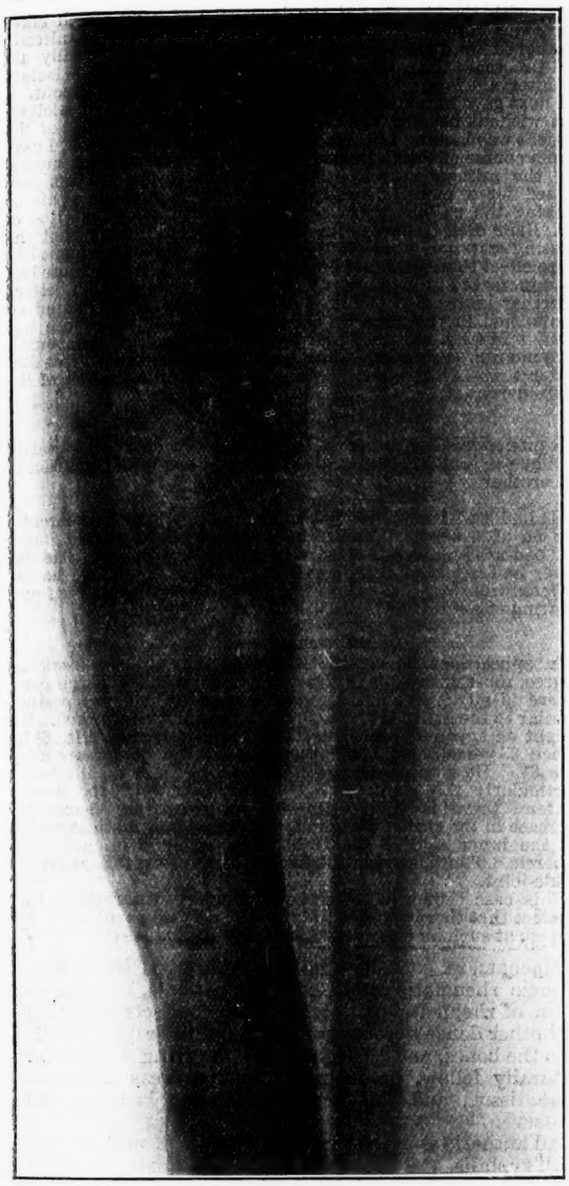
Measurements of the patient's head compared to those of a man wearing a hat of size originally worn by the patient.

	Patient.	Comparative Case.
	Inches.	Inches.
Occipito-mental diameter...	9	9¼
Occipito-frontal diameter...	8½	7½
Suboccipito-bregmatic diameter ...	7	7
Biparietal diameter...	6¼	6
Bitemporal diameter	5½	5
Glabella to occipital protuberance ...	16	13½
Circumference	24½	22
Pinna to pinna	12¾	12¼

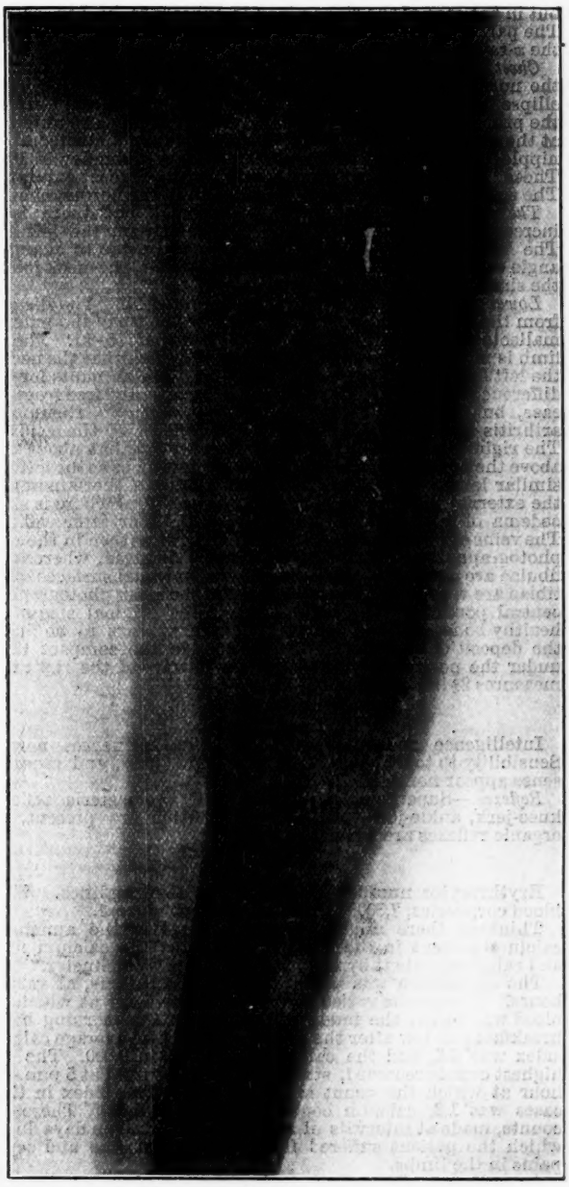
He has a peculiar visage, owing, first, to a slight degree of acne of the nose, and, secondly, to enlargement of the upper jaw, which is not symmetrical, being most marked on the left side; the left malar bone is also involved, giving the appearance at first sight of antral disease.

The Spine.—The curves are those of the normal spine, but greatly exaggerated. This appears to be due in part to the excessive weight of the head; the neck is very short and thick, and there is a kyphosis of the dorsal region, being apparently compensatory to the cervical lordosis. The vertebrae themselves do not appear to be affected by the disease. Thirty years ago his height was 5 ft. 10½ in. At the present time it is 5 ft. 5½ in. This shows the extent of the spinal curves.

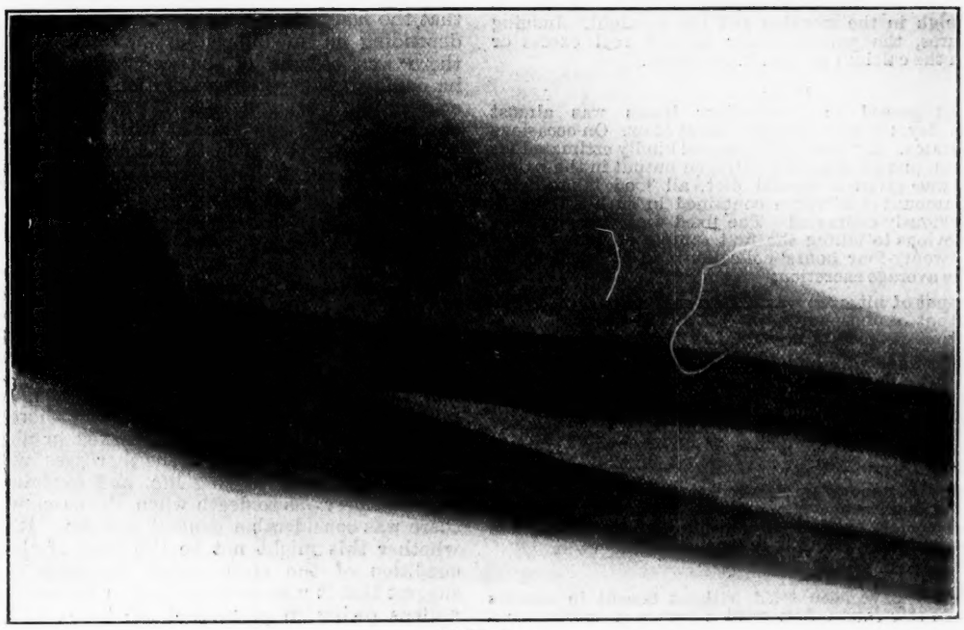
Upper Limbs.—The right clavicle is bowed anteriorly, and at its centre measures 1 in.; the left clavicle measures ⅝ in. The surface is rough and nodular. The arms appear to be quite normal, with the exception of the right ulnar (see *x*-ray photograph, p. 14) and the injured fingers. The right elbow-joint appears to be a little stiff. It does not seem possible in any of the affected bones to say exactly what amount affected, the normal passing imperceptibly into diseased bone,



Right leg.



Left leg



Right ulnar.

but in the case of the right ulnar it appears to be 3 in. or 4 in. The part affected is enlarged and nodular, as demonstrated by the *x*-ray photograph.

Chest.—The ribs do not show individually any alteration from the normal, but the chest in cross section (instead of being an ellipse, broader from side to side than from before backwards, in the proportion of 7 to 5) is a circle, measuring in circumference at the nipple line 37 in. The antero-posterior diameter at the nipple line is 10 in. The lateral axillary diameter is 10 in. These measurements were taken during forced expiration. The subcostal angle is more obtuse than in the normal chest.

The pelvic bones are apparently normal, but there is an increased breadth of the hips, particularly on the left side. The left trochanter stands out prominently, due to change of angle of the shaft and neck of the left femur, the neck joining the shaft at a right angle.

Lower Limbs.—Both are markedly diseased. The distance from the anterior superior iliac spine to the tip of the external malleolus is on the right 36 in. and on the left 35¼ in. The left limb is more affected than the right. The fact that the neck of the left femur joins the shaft at a right angle accounts for this difference in length. The joints are apparently free from disease, but a few nodes similar to those seen in rheumatoid arthritis are found on the external surfaces of the condyles. The right femur is comparatively free, except that about 3 in. above the condyles it has the same circumference as the left at a similar level. Both legs show pigmentation of the skin around the external malleoli and extending up the leg. There is slight oedema of both ankles, especially at night or after walking. The veins of both legs are varicose. In both, as seen in the *x*-ray photographs, the tibiae are extensively diseased, whereas the fibulae are comparatively normal. The internal surfaces of the tibiae are very rough and nodular. In the *x*-ray photographs a central portion of the bone suggests the original size of the healthy bone, and the abnormal growth appears to be due to the deposition of lamellae of bone outside the compact tissue under the periosteum. The internal surface of the right tibia measures 2¾ in., of the left 3¼ in.

Nervous System.

Intelligence and memory good. Cranial nerves normal. Sensibility to touch, weight, temperature, pain, and muscular sense appear normal.

Reflexes.—Superficial abdominal and cremasteric reflexes, knee-jerk, ankle-jerk, plantar reflex flexion are present, and organic reflexes are normal.

Blood.

Erythrocytes number 4,900,000. No abnormalities. White blood corpuscles, 7,300. Differential count normal.

Thinking there might be some change in the amount of calcium present in the blood, I calculated the calcium index and calcium content by means of Blair Bell's calcimeter.

The calculation was made on several occasions, at varying hours. The results varied according to the hour at which the blood was taken, the index being high in the morning before breakfast and low after the midday meal. The average calcium index was 0.6, and the calcium content 1 in 9,000. The two highest counts recorded, strange to say, occurred at 5 p.m.—an hour at which the count should be low. The index in these cases was 1.2, calcium content being 1 in 5,000. These two counts, made at intervals of a month, occurred on days during which the patient suffered from severe headache and severe pains in the limbs.

According to Blair Bell, in health the calcium index may vary between 1.2 and 0.4, and from a calcium content of 1 in 5,000 to 1 in 15,000, according to the hour at which the blood is taken, being high in the morning and low at night. Judging by these figures, the patient never showed real excess or diminution in the calcium present in the blood.

Urine.

The amount passed in twenty-four hours was almost identical each day, the average being about 32 oz. On occasions it contained urates. Dr Scott of Liverpool kindly estimated for me the calcium, phosphorus, and nitrogen output in the urine. The patient was given a special diet, all food taken being weighed, the amount of nitrogen contained in such articles of diet being previously estimated. The fixed diet was given for three days previous to taking the first sample of urine, which was from a twenty-four hours' collection. In 32 oz. of urine, which was the average excretion,

The output of nitrogen was 20.7 grams.
The output of phosphorus was 2.20 to 1.53 grams.
The output of calcium was 0.0468 to 0.0108 grams.

Both the calcium and phosphorus figures are about the normal amount:

Ca	0.00425 to 0.00141	per cent.
CaO	0.00595 to 0 00191	,,
P_2O_5	0.2536 to 0.1775	,,
N	3.53 to 1.3	,,

The calcium output shows no relation to the phosphorus output, one being high when the other is low. The figures approach the normal, except as regards nitrogen, which was mostly high—generally over 2.3 per cent.

TREATMENT.

Various drugs have been tried without benefit in osteitis deformans. In this case I first tried a course of calcium lactate, with the idea that if the deposition of bone which takes place was Nature' smethod of strengthening the bones already weakened by disease, excess of calcium might materially aid the process. The patient continued to take calcium lactate at intervals for quite a month without the slightest benefit.

I next gave him citric acid as a natural antithesis to calcium, but without benefit. On the assumption that the blood of the patient was lacking in some internal glandular secretion, I gave him a course of Parke Davis haeminal, with the idea of supplying the missing secretion, but although treatment was continued for a month it was unsuccessful in removing pain or making the patient more comfortable. On the suggestion of Dr. Blair Bell I gave him thyroid extract, hoping that the missing secretion was that of the thyroid. This treatment had more effect than anything previously tried. After the dose had been increased to 15 grains a day the patient slept much better; a further increase of the dose up to 40 grains a day caused no diminution in the pains in the limbs or head. The dose was then gradually reduced, and finally treatment discontinued. Two months later sleep was about the same, and a great deal better than it had been previous to the administration of the thyroid extract.

CASE II.

A man, aged 62, brother of Case I, first came under observation by the patient coming to consult me as to the condition of his brother.

Personal History.

He had had rheumatic fever when a boy, which apparently left no after-effects. He had been a steady hard-working man, and had not indulged to excess in alcohol or tobacco. He had never had syphilis or gonorrhoea. For many years he had suffered from varicose veins of both legs, necessitating continual wearing of elastic bandages.

Present State.

In appearance he resembles his brother to a remarkable degree, most noticeable in the large size and shape of the head. There is slight kyphosis, and the head is held in a position similar to the attitude in his brother, but not so marked. His height as a young man was 5 ft. 8 in.; it is now 5 ft. 6¾ in. When 23 years of age his hat was size 6¾; he now wears a hat size 8½. He complains of frequent pains in his shin bones, particularly the right leg. On examination of the osseous system, there is very little change, except as regards the increase in the size of the skull, but there is a distinct nodule on the inner side of the right tibia, about 2 in. below the tubercle. There is also a thickening of the left tibia above the ankle-joint.

This case seems to me to be particularly interesting, from the fact that there appears to be previously no mention of this disease at such an early stage.

Macnamara considers osteitis deformans to be due to chronic rheumatic osteitis; all the patients, he says, complain of rheumatic pains; rheumatism affects aponeurotic and other dense fibrous structures and their prolongations into the bones, and he argues that rarefying osteitis must naturally follow, producing extensive areas of softened bone tissue, and this accounts for the bending under pressure.

All authorities agree that the disease is not associated with syphilis, and Paget states that the pain complained of is increased by administration of potassium iodide.

Gilles[1] recites two cases with autopsies. He concludes that the bony alterations are due to trophic disturbances depending on medullary lesions. In the first autopsy there was oedema of the cerebrum and cord, and on hardening a pale yellow coloration of the posterior cords, contrasting with the rest of the white substance, was observed. Sections stained with copper acetate made these differences visible to the naked eye. He acknowledges that these alterations do not appear to be a true sclerosis, but considers that they establish connexions with other diseases of the nervous system, such as tabes. In the second autopsy he found paleness of the column of Flechsig, especially in the middle and inferior dorsal region; this he considered to be due to rarefaction of nerve fibres. In the superior and middle lumbar regions there were triangles of healthy substance separated by bands of altered tissue. As regards the significance of these lesions, he does not consider them due to fixing and staining, because the characteristics noted invade the posterior cords everywhere in the dorsal region, being either much less marked or absent in other regions. He states that in neither case were there any nervous symptoms during life, and explains this by the fact that previous to death when the cases were examined there was considerable general oedema. It may be asked whether this might not be the cause of the *post-mortem* condition of the cord which he described. I should suggest that it was most marked in the dorsal and lumbar regions owing to posture of the body, *ante mortem* and

post mortem. In any case I should imagine that such lesions, if present, would have caused some symptoms during life. In Case 1 I have failed to find any such nervous symptoms on careful examination.

Butlin regards osteitis deformans as a chronic inflammatory condition. On microscopic examination sections of the bones showed the Haversian canals wide, with the walls eaten out and rough, the so-called Howship's lacunae, which he considers characteristic of bone inflammation; the canals also showed lesions analogous to chronic inflammatory disease.

Lancereaux suggests that the new bone formation is an attempt at reinforcement of the long bones which have been weakened by absorption. Its distribution around the entire circumference, however, differs from other instances of compensatory growth, as seen in rickets, where the reinforcing bone is developed on the concave side of the shaft.

The association of cancer with osteitis deformans is interesting. Of Paget's 5 cases, 3 died from cancer: in two of osseous growths, in the third an epithelioma of the dura mater. Butlin states that sarcomata occurring may be accounted for as follows: The condition of the bones is attended by the formation of a large quantity of material rich in cells which is prone to sarcomatous degeneration, especially when, as in osteitis deformans, this material remains cellular and stored within the bones.

Blair Bell believes that the amount of calcium salts present in the blood is regulated by some internal secretion, and suggests the thyroid. Is it possible that the deposition of such salts is regulated in a like manner, and the derangement of that mechanism causes the trophic changes in the osseous system?

REFERENCE.
[1] *Nouvelle Iconographie de la Salpêtrière.*

A DANGER ARISING FROM THE USE OF PLATED INSTRUMENTS IN OPHTHALMIC OPERATIONS.

BY W. C. ROCKLIFFE, M.A., M.D., M.R.C.S.,
OPHTHALMIC SURGEON, HULL ROYAL INFIRMARY.

HAVING recently had the misfortune to lose an eye from acute panophthalmitis after extraction from a complication I am inclined to think is unique, I trust this report may be of value as a warning to others.

A. B., aged 73, was admitted to the Hull Royal Infirmary on February 15th, 1909, with ordinary senile cataract. He was a perfectly healthy old man, with no trace of catarrh or mucocele. The eye, as is my custom, was cleaned and covered with a carbolic pad the night previous to the operation, every usual aseptic treatment was carried out during and after the operation, which was performed on February 19th, and was uncomplicated throughout.

On the following morning (February 20th) the lids were somewhat puffy, but not more so than is frequently seen as the result of pressure of the speculum; nevertheless, there was a slight mucous discharge, and the cicatrix did not look perfectly healthy.

On February 21st the eye was in a state of acute panophthalmitis. He was ordered leeches and perchloride irrigation every two hours; on February 22nd the galvano-cautery was freely applied to the cicatrix; nevertheless the pain and distension of the eye with pus became intense during the day, and the house-surgeon did paracentesis during the night, with great relief to the patient. On February 23rd the eye was excised.

Early on the morning of February 23rd, before the eye was excised, a bright foreign body was noticed during an irrigation floating away with the lotion, and was fortunately secured by the nurse.

This turned out to be a piece of plating measuring about 1.5 mm. by 1 mm., and clearly came from some instrument. I therefore examined the forceps and de Wecker's scissors, and found a corresponding deficiency of the plating near the hinge of the scissors, and a second larger strip almost detached. On inspecting my other plated instruments, some also showed signs of the plate peeling off.

I assume that during the iridectomy the fragment had dropped unseen into the anterior chamber or cicatrix and caused the panophthalmitis.

The question naturally arose how this septic condition occurred, everything having been thoroughly sterilized and every aseptic precaution having been carried out, especially as it has been stated that a copper foreign body in the anterior chamber never causes suppuration of the vitreous. I might add that all instruments after cleansing are placed in pure alcohol.

Could the carbonate of soda in the boiling sterilizer, the 20 per cent. carbolic in the instrument dish, or the alcohol, have had anything to do with the cause of the separation of the plating?

Being by chance at the Royal London Ophthalmic Hospital, among others I mentioned the case to Mr. Bishop Harman. He suggested that a fault in the copper-nickel plating in the presence of a saline solution might set up galvanic action; this would explain the separation of the plating and also the subsequent inflammation produced in the eye. He therefore kindly undertook to submit the fragment to an expert Cambridge physicist, who reported "that he thought that pieces of double metal like this would very much strengthen the electrolytic action if they got into the saline fluids of the eye, and can quite believe that it would produce much greater inflammation than either metal singly. The strength of the action would depend somewhat upon the electro-magnetic force of a copper-nickel couple in the salt solution, but even if this were small the fact that the two metals are in actual contact would, of course, produce a comparatively strong current."

Since then Mr. Bishop Harman has obtained more such scales of plating and submitted them to Dr. Crocker, of the South-Western Polytechnic Institute, Chelsea, London, who reports:

> The electro-magnetic force of nickel and copper electrodes in normal saline solution is 0.02 volt. When the electrodes are placed in perchloride of mercury solution, and the circuit closed, calomel deposits pretty readily on the nickel and mercury on the copper. It seems probable that the effect was primarily due to the action between the couple itself and the organic fluids of the eye, judging by the ease with which the couple corrodes near the surface of the liquid, in air.

These reports appear somewhat conclusive as to the cause of the peeling off of the plating, and the subsequent acute panophthalmitis, and I am much indebted to these gentlemen for them.

That the peeling off of the plating on steel instruments (although, as far as I am aware, not hitherto commented upon) is not so uncommon as it would appear, is proved by the findings of Mr. Johnson Taylor (Norwich) and my colleague, Mr. Roe. When I mentioned this case to them they inspected their instruments, and in each case parts of the plating on pairs of de Wecker scissors were found either partly or almost completely detached.

In conclusion, as a warning, I will suggest to all using plated ophthalmic or other instruments to examine them thoroughly prior to use, and I much doubt the advisability of ever using such instruments again.

Probably most ophthalmic surgeons of experience can recall cases of acute panophthalmitis following extraction, which they have been absolutely unable to explain. This case may suggest a possible cause of, what would have been in my case, a painful ignorance, had not my nurse detected the foreign body.

The spot in the square is the exact size of the detached piece of plating.

SEVERAL hospitals benefit largely by the will of the late Mrs. Charlotte Sarah Greenhill, of Norfolk Square, W. The Royal Ophthalmic Hospital, City Road, and the Children's Hospital, Paddington Green, are each given one-sixth of the residuary estate, and the Royal Free Hospital two-sixths. As the total residue estate appears to be over £100,000, the amounts which these institutions are likely to receive are very considerable. In addition, the Royal Free Hospital receives a direct bequest of £2,000 and the Children's Hospital one of £1,000. Like sums also go to the Middlesex Hospital and the West London Hospital.

THE VALUE OF EXPERT RADIOGRAPHY AND CYSTOSCOPY IN THE DETECTION OF OBSOLESCED TUBERCLE IN THE KIDNEY.

A DEMONSTRATION GIVEN IN THEATRE 5, ON MARCH 29TH, 1909, AT THE LONDON HOSPITAL.

BY E. HURRY FENWICK, F.R.C.S.,
SURGEON TO, AND A LECTURER ON CLINICAL SURGERY AT, THE LONDON HOSPITAL.

[WITH COLOURED PLATE.]

As my knowledge of the radiography of caseating tubercle of the kidney has increased,[1] I have been encouraged to hope that I might meet with an unequivocal example of the disease in order that I might demonstrate to you, simply and yet impressively, the precision with which expert radiography and cystoscopy reveals to us this form of renal tubercle.

A patient sent to me a fortnight ago by Dr. Marr, of Dunstable, has afforded me the opportunity I have sought. She is a married woman, aged 36, and she complains of pain in the left kidney. It is the *right* kidney, however, which is really diseased, although it is painless, and although I cannot detect it by manipulation. Naturally, she wishes me to operate on her aching large left kidney, but I have persuaded her to allow me to remove the right kidney altogether!

Such divergent views and so strongly expressed an opinion must needs be based on the best of clinical evidence. I propose to adduce this and thus to justify my line of action before the patient is anaesthetized by describing to you the exact condition of her right kidney. I show you a pen and ink sketch (Fig. 1) which I have made of that organ. I want you to understand that this sketch, which I have sent to Dr. Marr, is not a conception, it is no fancy diagram. It is seriously meant to represent the actual fact, the exact size of the right kidney, its contour, and the bulgings on its surface. Indeed, when I have removed the kidney you shall place it on the sketch, and you will then be able to see how precisely it corresponds to it in shape and size.

Fig. 1.—Sketch of right kidney made before the operation.

You notice the contour of the upper pole, how it is widely scalloped to represent bulgings. These rounded prominences are due to cysts. Each cyst is marked by a cross (x). I contend that each cyst is filled with caseous material like cream cheese, which is permeated with lime phosphate—the inspissated remains of tuberculous abscesses. The central area has x x x on it. This area marks a small encapsulated caseous mass, but the caseous material is drier, for the cyst is older in formation than the others. It is in close proximity to the renal pelvis, but it does not open on to it. Note also the cyst uncrossed which occupies the lower pole of the kidney. Let me transfer this sketch to the blackboard (Fig. 2). You notice I make no attempt to represent a renal pelvis. There is no pelvis; it is replaced by fibrous tissue. Note also that I make the ureter small and thin, not like the huge thick ureters I have always drawn in other tuberculous kidneys.[2]

No; this ureter is a fibrous cord. The kidney is useless, because the ureter has been closed for years.

Now this sketch and this dogmatic statement concerning a kidney I cannot feel, and which the patient has not felt for years, will be startling if it prove accurate in every detail. Yet there is no difficulty in the diagnosis; the entire matter is "simple to excess," as I hope to show you, for it is based on those modern methods of scientific research—expert radiography and cystoscopy—which have not as yet received the attention they deserve.

The patient was then anaesthetized, and the right kidney was removed by the lumbar incision.

The kidney was unrecognizable as a kidney. It was quite small (Plate, A), and when it was laid on the tissue paper sketch it corresponded with it almost exactly in size and outline.

The upper pole and the middle third was seen to have been transformed into bulging yellow cysts (Plate, A), the septal lines of which ran exactly as marked in outline on the sketch. Each cyst contained lime cream material of obsolesced tuberculous pus (Plate, B).

At the middle of the shrunken gland was, as described, an isolated collection of crude tubercle, hardish and yellow. The lower pole of the organ had also become cystic, but the contents of these cysts was different to that anticipated by the operator. He expected a thin caseous material, but it proved to be a dark urinous fluid. There was no pelvis; it was merely a tough mass of connective tissue. The ureter was an impervious cord.

All the details mentioned before the operation, with the exception of the contents of the lower cysts, were accurate enough to satisfy the most exacting of critics.

The caseous cream-cheese-like material was subsequently examined by Dr. Panton, who reported that it was composed of fat, no cholesterine, considerable inorganic residue. Calcium salts formed 15 per cent. of weight of the total substance. Unluckily the clear fluid of the lower cysts was lost.]

Let us look at the many and varied lessons which this case can teach us.

What were the data at my command which enabled me with so much confidence to remove a painless kidney and leave an aching one? On what grounds did I venture to describe the right kidney as useless and to draw its exact shape and size—to delineate its cysts and to anticipate what the contents of those cysts would be? To affirm it had no pelvis and that its ureter was a cord, not a canal?

First, I knew the patient had had tuberculosis of the urinary tract. Eighteen years ago she was sent to me, when she was a girl of 17, by Dr. Steele of Hemel Hempstead, suffering from cystitis. I examined her with the then new instrument, the cystoscope, and found ulceration of the bladder near the right ureter. I subsequently published the details of the case.[3] I did not know then, as I do now, that this ulcer in the ureteric area generally indicates renal tuberculosis of the same side.

Incidentally I may mention that I treated her with Koch's tuberculin, and she improved, and I lost sight of her. An enthusiast might jump to the conclusion that the obsolesced condition to which this kidney tubercle has passed is due to the treatment by tuberculin. This is not so, I feel sure. Eighteen years' experience of tuberculin has proved to me it rarely "cures" urinary tubercle. It generally reduces the absorptive toxicity of the débris and the caustic destructiveness of the urine. I have never published or taught that tuberculin was a *cure*, but I always use it if I can, because it is the most important therapeutical remedy we possess for allaying the bladder distress of early tubercle.

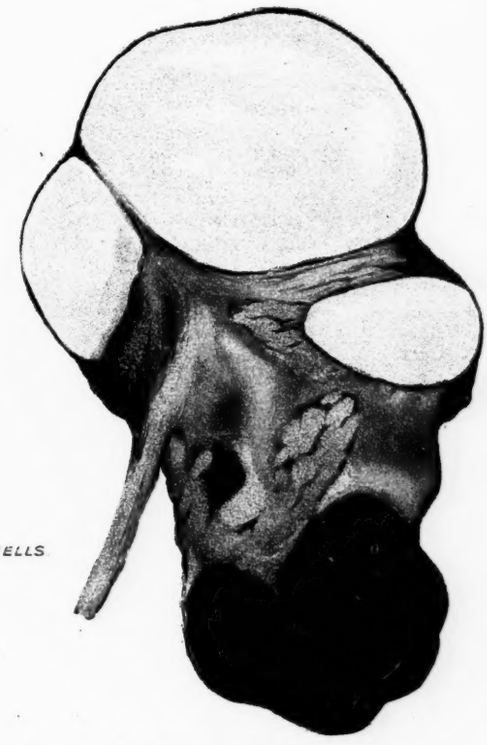
Reading through these old notes, illuminated by the light of eighteen years' experience of cystoscopy, I realized

(To illustrate Mr. Hurry Fenwick's paper.)

A

Advanced "massive tuberculous degeneration" of Right Kidney.

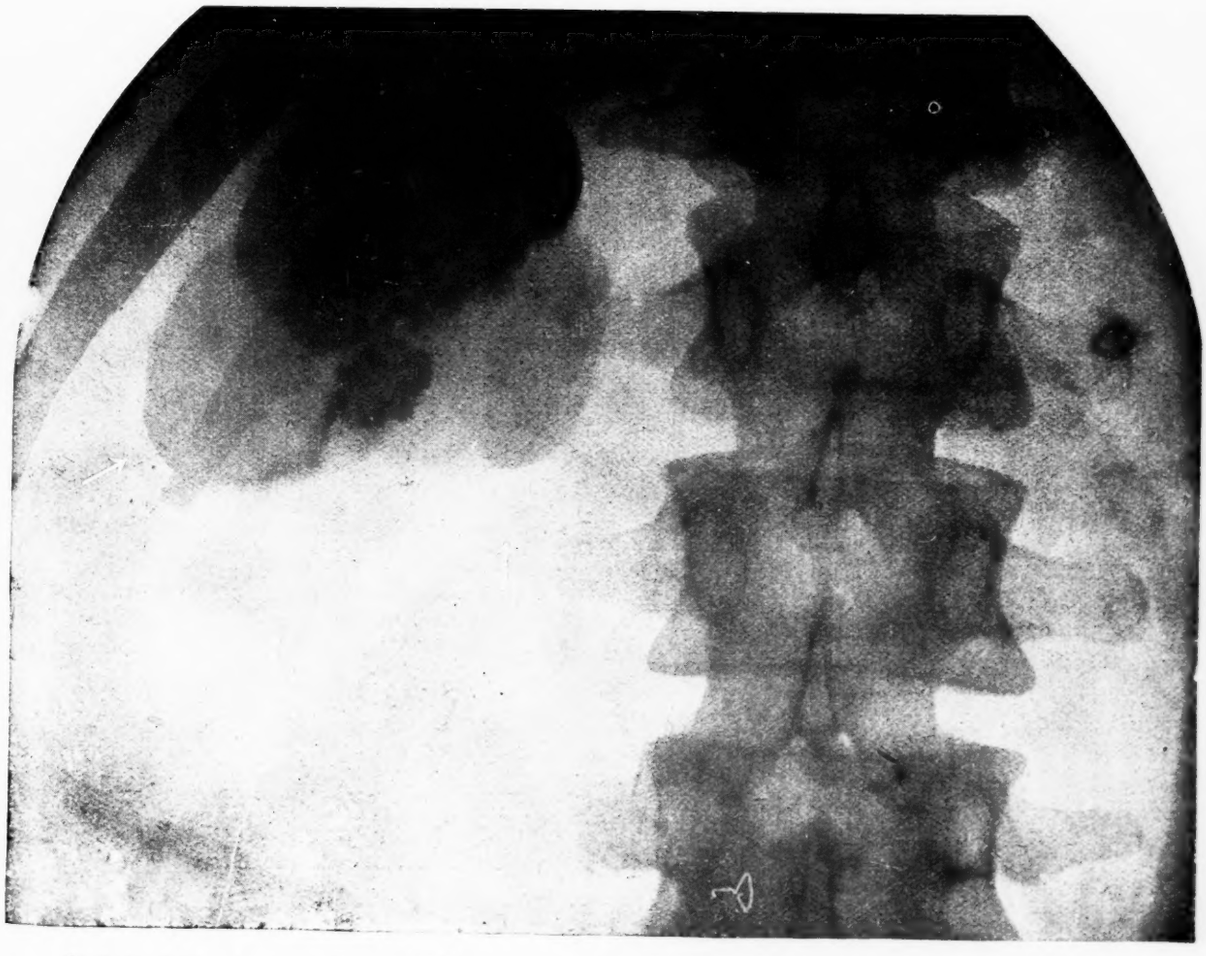
B



W. THORNTON SHIELLS

Hemi-section showing thick white putty substance in sacs of Right Kidney.

C



Radiograph showing oval shadows (white arrowed) of loculated sacs of "massive tuberculous degeneration" of Right Kidney.

that the right kidney had probably been tuberculous when I first saw the patient. But what was its condition now, for it was painless, and the urine contained but little pus. Had the ureter closed and the kidney become useless? This was the most probable explanation of the quiescence.

To solve this problem I cystoscoped the patient last week, and showed the visitors and students a scar on the right side of the posterior wall of the bladder, just where the ulcer had appeared eighteen years ago. I showed pages of notes and drawings of this bladder which I had made eighteen years ago, and together we compared the then and the now. Without cavil the ulcer of 1891 had healed. I then decided to pass a ureteric catheter up to the right ureter, but I could not find an orifice. The ureteric lips were there, but they were sealed. I examined per vaginam in order to feel the ureter as it crosses the back of the bladder. I could hardly feel that tube. The deduction was that the ureter was impervious, and therefore that the kidney was useless.

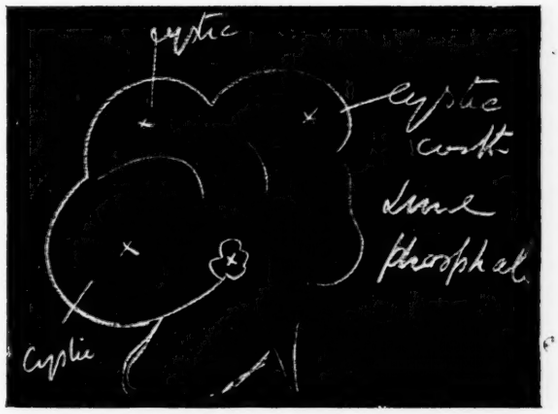


Fig. 2.—Blackboard sketch of kidney made before the operation.

The next question was, If the kidney is functionless, is its presence detrimental? What has happened to the tuberculous deposits of eighteen years ago? Have they obsolesced? The patient was *x*-rayed by Mr. Coldwell (Plate, C), and a dense shadow was found in the right renal region. Careful examination of this under bright light revealed that it was composed of a congeries of curved sharp-edged shadows obviously cast by cysts, and these together assumed the shape of a kidney. Each cyst was clearly defined. Some of the cysts were darker than others. By previous experience—for I have been examining cysts under the *x* rays for some time—I knew that these cysts contained material more or less impregnated with lime phosphate. If the patient had been tuberculous the cyst would contain the usual cream-cheese or putty-like material.

I had now all the facts at command. I was therefore able to designate in the sketch the size of the kidney, its cysts and the contents of the cysts, the atrophic ureter and pelvis.

I should like to say here what a fine series of cyst densities this case reveals. They range from the solid to the semi-solid and the liquid, a valuable series for comparison with those hydatid cyst shadows which project from the dome of the liver.

But, you say naturally, Why operate at all; the other kidney is the painful one? The one you have removed, although useless, is inert.

No, pardon me. I catheterized the left ureter and found rod-shaped bacilli and evidences of tuberculous degeneration in the urine, and these, with the clinical symptoms, satisfy me that the left kidney is in a state of consecutive nephritis (Albarran), induced probably by absorption from the foci in the right kidney. It was wiser, I consider, to remove any possible source of absorption, especially as the right kidney was movable; the operation would therefore be easy and rapid and the shock of no moment.

But how could I tell the kidney was movable without feeling it? The answer contains a point of practical value which is worth noticing and remembering.

The kidney is always radiographed for me in two positions; in one the patient takes a deep breath and holds it while the *x* rays are switched on; the effort thrusts and keeps a mobile kidney down. For the preparation of the next plate the patient breathes easily and naturally; the mobile kidney rises and falls and is radiographed. If the shadow of the kidney corresponds in position in the two plates I have to deal with a dangerously-fixed kidney. If the shadow has moved the kidney is movable and the operation is relatively easy.

Finally, you might ask this question: Having removed this inert kidney, are you content? By no means. The surgeon's task has only just commenced. The attempt must now be made to repair the left kidney by therapeusis.

There are three areas to repair.

The renal pelvis, which is affected by the tubercle bacillus. This is done by graduated minute doses of Koch's new tuberculin. But that is not curative. A coincident attempt is made to wall in the destructive processes by lime, either by administering lime chloride or lactate — what you will, as long as you imitate Nature's method of cure by giving lime, for I hold the profession are blindly chasing bacteria to root them out, and are forgetting to wall them in and render them innocuous.

The structure of the kidney, especially the cortex, is also repaired by giving crushed kidney—a valuable medicine I have had in active employment for fifteen years, and the powers of which I am only just beginning to realize; and lastly, the general health is improved and nutrition aided by fresh air and the addition of sugars and fats to the diet.

The wound healed rapidly, and the patient's last report (June 16th, 1909) showed she was improving.

REFERENCES.
[1] E. Hurry Fenwick: *The Value of Radiography in the Diagnosis of Urinary Stone*, Chapter x, p. 118. [2] Pre-operative Demonstration of Tuberculous Foci in the Kidney, BRITISH MEDICAL JOURNAL, January 27th, 1906. [3] *Handbook of Clinical Electric Light Cystoscopy*, p. 177: Mary A., aged 17.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

QUININE DERMATITIS.

THE following instance of acute dermatitis resulting from the smallest doses of quinine may be interesting. A lady who knew that she was most susceptible to quinine, and always had a rash after taking it—for instance, one dose of "a one-day cold cure" caused eruption all over her within twelve hours, and desquamation lasting more than a fortnight—took only two half-doses, that is, one teaspoonful, of bynin amara; this preparation appears to contain less than ¼ grain to the drachm. During the day the usual eruption appeared on the hands and arms, and by night had spread over the whole body, with intense irritation. She was advised to continue with even smaller doses in the hope that she might become accustomed to it. During the next two days the condition remained the same; the irritation was worse at night; she had no headache, and practically no eruption on the face. The quinine was stopped. On the fourth day the hands, and particularly the legs and ankles, were very greatly swollen; the palms especially were red and shining, and the feet less so, but the fingers and toes were stiff, feeling numb and distinctly cold to the touch. Baths, with bran, oatmeal, etc., gave no relief. By the seventh day desquamation began on the hands and arms, and extended to the trunk and lower limbs, the epidermis separating in large strips and flakes with almost casts from the toes. During the fourth week this was not completed, and the general appearance was as like scarlet fever as could be. It is somewhat curious that the same patient has most unpleasant symptoms on taking sodium salicylate.

Wallington, Surrey. WALTER GRIPPER.

STRYCHNINE POISONING: RECOVERY.

ALL cases of poisoning should be published, with the treatment adopted.

At midnight, on May 26th, 1909, Mrs. P., aged 39, was noticed to be suffering from twitchings. About fourteen

tablets of Easton's syrup were said to have been swallowed an hour or two beforehand. Each tablet contained the equivalent of 1 drachm of the syrup. The injection of apomorphine hypodermically caused two tablets to be vomited; thereafter all the classical symptoms of strychnine poisoning were horribly evident. With the kind help of Dr. Knox of Maida Vale, the stomach was thoroughly washed out by tube, and about a pint of raw whisky poured down the funnel. The convulsions not ceasing, and death seeming both to the watchers and the patient to be imminent, morphine $\frac{2}{3}$ grain was injected under the skin. In ten minutes or so improvement was visible; in half an hour quietness was obtained, and soon after the patient fell asleep. For the following two days stiff neck and limbs were complained of, with general pains. The patient had swallowed probably $\frac{7}{16}$ grain of phosphate of strychnine, $\frac{1}{16}$ grain at least was known not to have been absorbed, so $\frac{3}{8}$ grain nearly caused death. The fatal dose is generally considered to be $\frac{1}{2}$ grain as a minimum.

London, W. G. MACLELLAN BLAIR.

AORTIC SYSTOLIC MURMUR: PROGNOSIS AND TREATMENT.

WHAT is the value that should be attached to the heart murmur usually attributed to aortic stenosis, a rough systolic murmur in or about the second right interspace? My own experience, in a country practice, is that it is of comparatively small importance as regards prognosis of life duration. My experience, however, may be exceptional. Most of the cases I have met with have been in old—indeed, aged persons. The heart symptoms have been unimportant, and drugs acting specially on the heart have been of little use. Bromides, however, have invariably been of some service. In the cases of those who died I had been aware of the murmur for four or five years at least before death, so that the final illness did not produce it. It seems to be a commoner condition than books lead us to expect. When I meet with it now I regard it almost as a positively favourable sign of the heart's condition, unless the occupation is very arduous. The cases I have met have not had many symptoms in common. Perhaps the most universal has been a certain excitability of temperament, not necessarily prominent, but easily brought into notice; if the murmur be really due to aortic stenosis this characteristic might be due to some brain anaemia. The patients have, however, been quite as often full-blooded people with rather the appearance of having congested brains, and this has tempted me to believe the murmur may be due to the resistance produced by an overfull condition of the vessels in the upper thorax and cerebrum. I am quite sure I have not seen a case of death in the last seven years at least from heart disease, with this murmur as the initial and prominent symptom, in any patient under 65 years.

I append the last eight cases which have come under my notice with this peculiarity, and their ages will not suggest that the symptom is one of grave omen.

1. Female; married; had large family; lived hard-working life; was tall and strongly built; never had serious illness; later years a little asthmatic; died of bronchitis aged 72.
2. Female; large build, strongly built; married; had family; hard working life, washing, charing; never seriously ill; died of apoplexy aged 80; before death for a year or two mental perversions, suspicions, etc.
3. Female; single; strongly built, short; never serious illness; some oedema of legs and renal insufficiency last two years, but did her housework; died of erysipelas aged 78; great smoker.
4. Female; strongly built; family; hard working; is alive and well, though asthmatic; aged 76.
5. Male; married; strongly built; active life; has had rheumatic fever, so-called, three times, but colchicum relieves and salicylates do not; has often headaches; aged 45.
6. Male; unmarried; was a shepherd; suffered since a lad from severe headaches; was told when 15 he had heart disease; goes about fairly well; aged 75. In this and the last there were very marked rasping murmurs.
7. Male; unmarried; very powerful build; was noted for strength all his life; ditcher, pitman, and any hard work; some asthma; active; aged 78.
8. Female; married; fairly hard-working life; rheumatic fever, so-called, several times, every joint each time being affected; colchicum relieves still and salicylates do not; very well; aged 76.

I could easily cite other instances, but these are illustrative.

Rothbury. C. W. LAWSON.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GARTLOCH HOSPITAL FOR MENTAL DISEASES.

SECONDARY PAROTITIS.

(Reported by J. E. MIDDLEMISS, M.R.C.S., L.R.C.P.)

AFTER reading the interesting article by Drs. H. D. Rolleston and M. W. B. Oliver in the JOURNAL of May 29th, p. 1296, entitled, "Secondary Parotitis due to Oral Starvation in the Medical Treatment of Gastric Ulcer," it occurred to me that an account of a case which came under my observation might not be without interest.

The patient, an epileptic, age 47, had been in the status epilepticus fourteen days before the period with which I am dealing. He had recovered from the attack, and was about to resume work when a second series of fits supervened. On March 26th, 1909, during the evening the patient rapidly assumed the epileptic state for the second time. On this occasion he had 102 fits altogether in the space of about three days and then became comatose—this in spite of the usual eliminative treatment, and the administration of full doses of chloral hydrate combined with tincture of digitalis both by mouth and rectum. For the space of four days, including one day during which he was having fits and three days during which he was comatose, he was fed per rectum, and took nothing whatever by the mouth. During this period an attempt was made to keep the mouth moist and clean by means of antiseptic mouth-washes but it was only partially successful. Both lips and teeth were dry, discoloured, and covered with sordes; the breath was foul, and the tongue dry and parched. On April 2nd (four days after the rectal feeding was resorted to) a swelling was noticed on the right side of the face in the region of the parotid gland. This quickly became larger and more tense, and fomentations were applied. Suppuration ensued shortly after, and two days later pus discharged through the external ear. On April 4th a similar condition developed on the left side, and the gland suppurated and discharged in the same way as before. Both abscess cavities were freely drained and syringed with weak carbolic and boracic acid lotions, and the discharge gradually diminished, and finally ceased on April 26th. During the course of the parotitis a somewhat extensive gangrenous patch appeared over the sacral region, although the patient had been most carefully guarded against bed-sores. At the present time he is improving steadily though slowly, and, except for some limitation in the jaw movements and in the protrusion of the tongue, there are no sequelae as a result of the glandular inflammation.

Remarks.

The points of interest in the case are that, in the first place, the parotitis seems to be directly attributable to oral sepsis due to oral starvation, the infection being most probably conveyed along the gland ducts from the mouth. The fact that no nourishment was given by the mouth for four days, that the latter was admittedly in an unhealthy condition, that the affection was bilateral, and that there was no other obvious cause present, and certainly no one of the conditions which are ordinarily said to be associated with secondary parotitis, such as haematemesis, gastric ulcer, the infectious fevers, etc., serves to accentuate the important part played by oral starvation alone in this disease. Finally, it should be mentioned that for a week or ten days after mouth feeding had been resumed the patient evinced an inordinate thirst.

IT is announced that owing to political reasons the medical profession of Roumania will take no part in the proceedings of the International Medical Congress to be held at Budapest.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

Thursday, June 10th, 1909.

Dr. HERBERT SPENCER, President, in the Chair.

Red Degeneration.

MR. J. BLAND-SUTTON described a case of red degeneration of a uterine fibroid associated with *S. pyogenes aureus*. The patient, a primigravida, when two months advanced in pregnancy was seized with an acute and sudden abdominal pain. On operation, twenty-four hours later, a large subserous fibroid and several interstitial ones were found and removed, together with the uterus. The larger fibroid presented an area of softening, and the surface over this area was covered with lymph. From this "infarcted area" a pure culture of *S. pyogenes aureus* was obtained. No micro-organisms were detected in the interstitial fibroids, although they exhibited the red change in streaks.

Solid Tumour of the Ovary.

Mr. G. F. DARWALL-SMITH recorded the case of a multiparous woman, aged 36, who was found to have a rounded, solid tumour in the right posterior quarter of the pelvis the size of a man's fist. This was removed, and on examination the tissue of the ovary could be seen to be stretched as a capsule over the substance of the tumour proper. The cut surface of the tumour looked like an ovarian fibroma. On microscopical examination, scattered about in the fibrous stroma were seen strands of cells resembling glandular epithelium. Some of these cells showed degenerative changes. The diagnosis seemed to lie between endothelioma and adeno-fibroma. Dr. W. S. A. GRIFFITH mentioned that he had removed a similar tumour of the right ovary with similar microscopical characters. The tumour showed clinically no signs of malignancy.

Chorion Epithelioma.

Dr. J. S. FAIRBURN, in a paper on primary chorion epithelioma of the ovary, described a case in a woman who had had four pregnancies, the last in February, 1905, when the placenta was removed by hand, and the convalescence was protracted.

For some months before admission to St. Thomas's Hospital there had been slight but continuous uterine haemorrhage, and for about six weeks abdominal pain, chiefly on the right side. A tender swelling in the abdomen had been noticed by the patient for about three weeks, and was the reason for her seeking advice. This was thought on examination to be an ovarian cyst with torsion of the pedicle, but at the operation on January 3rd, 1907, it was found to be a haemorrhagic tumour of the left ovary with extensive adhesions, but no twisting of the pedicle. It was removed, and also the right ovary, which was cystic and involved in adhesions. The patient showed no signs of recurrence two years after operation. The tumour was of the size of a small cocoanut. It was covered with a white capsule of tunica albuginea, and on section was found to be made up of a mass of haemorrhagic tissue. Microscopically, the main part of the tumour consisted of blood clot, fibrin, and necrotic tissue, but under the capsule, between the ovarian tissue and the mass of clot, were seen the typical syncytial masses with small polyhedral cells of chorion-epitheliomatous growths. No traces of teratomatous elements were found. There was no history to indicate anything of the nature of a cystic mole or of chorion epithelioma elsewhere, and this was taken as sufficient evidence that the growth was solely and primarily one affecting the left ovary.

He suggested three possible explanations of the origin of chorion epithelioma primary in the ovary: (1) It might arise, as in Pick's cases and as in chorion epithelioma in the testicle, from teratomatous elements; (2) it might arise from a preceding ovarian pregnancy; or (3) be due to transportation of villi from a preceding pregnancy, molar or otherwise.

Uterus Didelphys.

Dr. BLAIR BELL read a paper on a case of rudimentary uterus didelphys, with ectopia of each uterine body in an inguinal hernia sac. The patient was a woman, aged 20, who had had a double inguinal hernia all her life. Lately there had been attacks of abdominal pain, which caused her to seek advice. She was well developed and intelligent, but monthly molimina had never occurred. The external genitals were normal in appearance and covered with hair. There was total absence of the vagina, but a circular fringe indicated the formation of a hymen. Per rectum no pelvic genital organs could be detected.

MEDICAL SECTION.

Tuesday, June 22nd, 1909.

Dr. S. J. GEE, President, in the Chair.

Gastro-intestinal Crises.

DR. G. A. SUTHERLAND, in a paper on gastro-intestinal crises from effusion into the bowel, said that unexplained haemorrhage from the gastro-intestinal tract was not uncommon at all ages, but occurred most frequently in early life. The effusion might be haemorrhagic or serous, the former being usually associated with purpura haemorrhagica, and the latter with some form of angio-neurotic oedema. The symptoms varied in intensity from slight attacks of colic, with or without melaena, to those of acute intestinal obstruction. The essential lesion in the severe cases would appear to be a paralytic obstruction of the bowel wall from effusion into its substance. The pain was due to over-action of the healthy bowel above the site of the lesion. This type of haemorrhage showed a special predilection for the ileo-caecal region. The resemblance between the symptoms of effusion into the bowel wall and intussusception had frequently led to an erroneous diagnosis of the latter condition. An intussusception might occur during an attack of effusion into the bowel wall and as a direct result of the extravasation. This was probably due to the violent peristaltic movements which were excited in the bowel above the paralysed portion, and caused the former to be invaginated into the latter. Many cases of unexplained intussusception might have their primary cause in effusion into the bowel wall which proves the starting point of an invagination. In fatal cases of intestinal effusion there might be found extensive ulceration of the colon due to sloughing of the mucous membrane at the haemorrhagic areas, which were often diffused widely over the bowel. Haemorrhages or serous effusions in other parts of the body than the abdomen were not infrequently found if looked for. Mr. ARTHUR EDMUNDS showed drawings of cases, including one of haemorrhagic infusion limited to the appendix, and brought evidence of the spontaneous reduction of an intussusception. Mr. HUGH LETT discussed the difficulties of differentiating the cases from intussusception. Dr. SUTHERLAND replied.

UNITED SERVICES MEDICAL SOCIETY.—At a meeting on June 9th, Captain E. B. WAGGETT, R.A.M.C.(T.), in a paper on recruiting, suggested that the standards desirable in a small army of picked men, should be modified for a national defensive force. With regard to the minimum number of defective teeth, the standard should be found not in the mouth, but in the general nutrition of the man under civilian conditions. The army ration for home service should be made to fit all comers. Old syphilitic scars should render a candidate "unfit," recrudescence being likely under circumstances of privation. Septic tonsils by a man bordering upon general unfitness should not exclude, granted that he was willing to undergo operation. The removal of this source of local and general sepsis would lead to a remarkable improvement in a man of recruiting age. In the same category should be placed the young man exhibiting the "adult adenoid facies," with its nasal insufficiency and defective chest development.

DIETETIC PREPARATIONS.

Brusson Jeune Diabetic Bread.

THE London agent for the Brusson Jeune Bread asks us to point out that the comparison made between standard bread and the bread of his firm does not take into account the difference in the amount of moisture present; and that if this is allowed, as it should be, the amount of carbohydrate present in Brusson Jeune Bread is about 30 per cent. less than in standard white bread.

Reviews.

THE STUDY OF INHERITANCE.

To those who realize the importance which attaches to the study of hereditary influences in disease the present state of the question must have seemed a trifle disheartening. It is true that the last ten years have witnessed an unexampled output of experimental and statistical memoirs which, in point of learning and acumen, compare favourably with the work of any previous epoch; but it has at the same time been apparent that many of these productions were dominated by a wish to testify for or against some theory of inheritance, that they have displayed the enthusiasm of the advocate rather than the impartiality of a judge. For the student who desired to examine the facts of inheritance free from unconscious theoretical bias information has been hard to attain. Most of the evidence was scattered, and much of it unreliable, and it was, therefore, very desirable that an attempt should be made to collect and standardize existing material for the study of inheritance in man. The qualifications requisite for the due performance of such a task are possessed by but few. To a competent knowledge of the pathology of the disease investigated (we speak naturally of that side of heredity which is of special interest to the professional reader) must be joined patience in following up slender clues and rare powers of separating good from bad evidence. A reader will therefore begin the examination of a work requiring the union of such qualities with misgiving; a perusal of the first two parts of *The Treasury of Human Inheritance*[1] will go some way to reassure him. The present issue comprises eight sets of pedigrees, and the sections are constructed on a uniform plan. We may take as an illustration the portion devoted to chronic hereditary trophoedema, which has been contributed by Dr. William Bulloch. There is, first, an account of the main features of the disease (illustrated by photographs), composed in a style which would have gratified the author of the precept:

> Quicquid praecipies esto brevis, ut cito dicta
> Percipiant animi dociles teneantque fideles.

It is followed by an accurate bibliography. We then have five pages descriptive of those cases which could be thrown into the form of pedigrees. Finally, there is a page engraving of nine pedigrees, one of which includes five generations and nearly a hundred individuals. The pedigrees are beautifully engraved and the signs used clearly explained. All the other sections of the work approximate to the same high standard of merit. We have nowhere found a statement from which it could be inferred that the writer was committed to any particular theory regarding the mechanism of hereditary transmission. If subsequent issues of this *Treasury* maintain the standard reached by the parts before us, we are sure the book will come to be regarded as a monument of scholarship of which Englishmen may justly be proud. Such a work is unlikely to be a great commercial success, and we fear Charles Lamb would have classed it among the books which are no books; but Lewis and Short's Dictionary and the immortal "Liddell and Scott" are in the same condemnation. We have also little doubt that some enthusiasts, forgetting that the problem of inheritance must be viewed steadily and as a whole, will use detached fragments of the evidence to support this or that theory of heredity. However this may be, we find it difficult to express adequately our admiration of the skill and labour displayed by Professor Karl Pearson and his collaborators in the execution of their task. We will merely remark that only those who have themselves carried out bibliographical researches can form a just idea of the amount of time and thought which has gone to the making of this *Treasury*, and that we shall look forward with great interest to subsequent issues.

[1] *The Treasury of Human Inheritance.* Parts I and II. (The diseases included are diabetes insipidus, split-foot, polydactylism, brachydactylism, pulmonary tuberculosis, deaf-mutism, chronic hereditary trophoedema.) London: Dulau and Co. 1909. (Roy. 4to, pp. 50; 13 plates of pedigrees and 3 plates of illustrations. 14s.)

THE CAUSATION AND TREATMENT OF ASTHMA.

ASTHMA, like gout, with which it is sometimes associated, presents endless clinical problems for solution. In a recent work, Dr. MONCORGÉ of Mont Dore has set himself the task of explaining the disease from the standpoint of its causation, regarding the asthmatic seizure as a syndrome and not as a disease in itself.[2]

He complains that this view has not been sufficiently considered by the host of writers on the subject, who have been content to repeat stereotyped theories, and seem to think that the limits of possible knowledge have been reached. His theory is that the asthmatic paroxysm is the result of a twofold influence—the one centripetal, arising in an internal organ or external part, as the result of some outside influence, and passing to the respiratory centre; the other centrifugal, from the nerve centre to the respiratory organs. The centripetal influence is the important factor in so far as curative or preventive treatment is concerned.

Systematic examination of a large number of cases of asthma—and the author tells us that he has made 4,000 observations in the course of the last twenty years—reveals the fact that almost every kind of intoxication from without and every variety of auto-intoxication from within, may give rise to asthmatic attacks. The susceptibility of individuals varies remarkably, but a clear association between liability to asthma and to gouty and arthritic manifestations must always be recognized. While it is at all times difficult to be sure of the underlying cause of the attack, no effort should be spared to remove the obviously possible causes, and only a small proportion of cases should remain to be classed as functional.

The recognition of so many possible points of origin should prevent hasty conclusions as to the direct influence of any special lesion, such as a minor abnormality in the nasal passages. It has been too readily assumed that the correction of such obvious defects must have a beneficial effect upon the asthmatic syndrome, but the futility of so many operations, and the contradictory results that have accrued, have shown only too clearly that the nasal lesions are often only a part of the causal influences.

The author examines very closely the relations found to subsist between asthmatic symptoms and general and special diseases, particularly those of the respiratory tract. The influence of tuberculous disease has been sometimes denied and as frequently affirmed by equally skilled authorities, and Dr. Moncorgé is probably correct in steering a middle course. He shows that there is a marked difference in the incidence of asthmatic symptoms at various stages of tuberculous disease of the lungs, and as a result of his study he maintains that the occurrence of asthmatic attacks may be held to favour a hopeful prognosis. A considerable portion of the book is devoted to the important question of treatment, and as a general rule he counsels an active open-air life, with avoidance of coddling and the maintenance of strict hygienic habits. The benefits derivable from suitable climates, and especially from the climate of Mont Dore, are naturally accorded a prominent place. The value of drugs, and especially of potassium iodide, is closely examined, and many useful, practical, and suggestive hints are given. It must, however, be assumed that the patient is in a position to devote himself entirely to the cure of his malady, and but little is said of the unfortunate sufferer who must needs earn his living at the same time. The whole work will be found interesting and useful as opening up a somewhat wider field of thought than has hitherto been traversed by writers on the subject, but it is still manifest that the goal has not been reached.

[2] *L'Asthme (étiologie, pathogénie, et traitement).* By Dr. Moncorgé, Consulting Physician at Mont Dore. Paris: Vigot Frères. 1909. (Med. 8vo, pp. 256, Fr.4.)

DISEASES OF THE LIVER AND BILE DUCTS.

PROFESSOR PEL'S book on diseases of the liver[3] is a genuine and original contribution to the subject based on his own personal experience. He has evidently paid a good deal of attention to liver diseases, and as the Dutch colonies send

[3] *Die Krankheiten der Leber, der Gallenwege und der Pfortader auf grund eigener Beobachtungen.* Bearbeitet von Professor Dr. P. K. Pel, Director der medicinischen Klinik der Universität Amsterdam. Haarlem: De Erven F. Bohn; Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 389. M. 8.)

home to Amsterdam many sufferers from such affections, and Professor Pel has a reputation in this line of practice, he has had special opportunities, and speaks with no little authority, especially on certain forms of disease. He very frankly says that echinococcus is rare in Holland, and that he has seen very little of it, and that primary diseases of the liver are not common in his country, although those of the bile ducts are often seen. He is of opinion that the tropical liver is to be attributed more to the mode of life and want of exercise, to excessive use of food and alcohol, than to the hot climate. Liver abscess is in his opinion caused only by amoebic dysentery and not by the bacillary form, and his experience indicates that it may occur after a very slight attack. He professes himself unable to explain its greater prevalence in males, but are not the factors which he has already instanced as predisposing to liver diseases in hot climates present to a greater extent in men than in women? He holds that in the diagnosis of liver abscess there are three invariable symptoms: (1) General ill health, (2) enlargement of the liver, and (3) pain either in the liver or elsewhere. He refers to difficulty of swallowing as an occasional symptom which has led to a mistaken diagnosis of cancer of the oesophagus. He objects to any exploratory puncture for diagnostic purposes below the ribs, but he is in the habit of exploring with a trocar through the intercostal spaces, directing the instrument towards the left shoulder, and he does not object to an interval after puncture before operation. This essay on liver abscess is especially good. He has had experience of 46 cases, of which 39 were tropical. He holds that a patient who has once suffered from liver abscess should not return to a hot climate, and he advocates opening the abscess with the thermo-cautery in order to diminish haemorrhage from the liver substance. Cirrhosis of the liver is rare in Holland, while contracting kidney is common, and he attributes its rarity to the fact that the "spirit consumed there is so pure," but he has only been able to recognize abuse of spirits as the cause of a third of his cases, and he points out that experiments made by administering alcohol to dogs have not produced cirrhosis of the liver, while, as has also been pointed out by several writers in this country, the heaviest drinkers escape the disease. In the treatment of ascites he favours drawing off the fluid slowly by means of a fine needle, but he supports early and repeated puncture, and is not well disposed towards the Talma-Morison operation. He thinks that syphilitic affections of the liver are more common than is generally supposed, and that they are confounded with cirrhosis on the one hand and cancer on the other, but his diagnosis seems to be based mainly on the success of treatment with mercury and potassium iodide. He believes that gummata are generally situated in the left lobe, and give rise to pain that is worse at night. He does not think that the existence of high temperature and cachexia should be held to exclude syphilis. He gives potassium iodide in large doses, from 1 to 5 grams daily, divided into three or four doses taken in milk at meals. Inunction with mercurial ointment in any case makes the cure more certain, and should be used if the potassium iodide does not rapidly cause improvement. He also recommends the use of the old-fashioned mixture of potassium iodide and mercury biniodide in decoction of sarsaparilla. The chapter on cancer is excellent. He points out that neither youth nor the presence of fever negative the possibility of cancer. Some cases last for many years and show no marked cachexia, while, on the other hand, syphilis, dead hydatid cysts, and cirrhosis may each produce conditions closely resembling cancer. We have read this book with much pleasure, and warmly commend it to all interested in the subject.

From references made in the text, Dr. HALE WHITE'S *Common Affections of the Liver*[4] seems to be one of a projected series intended to deal more or less widely with common diseases; thus we are informed (p. 78) that a certain condition "is quite uncommon and belongs to Mr. Bland-Sutton's book in this series, and need not, therefore, be considered here." This way of dealing with a subject is never satisfactory from the reader's point of view, however it may be from that of the publisher. It is also a disadvantage in a book intended for students and young practitioners that the views expressed should not be those generally accepted; it ought at least to be made quite clear that there are other opinions. Thus we are told that all jaundice is obstructive, and that where it is not caused by obstruction in the large ducts it is due to inflammation of the minute bile passages, and other current explanations of non-obstructive jaundice, commonly so called, are omitted; the ascites of cirrhosis of the liver is ascribed to the action of a "lymphogogue" toxin, and this pathological doctrine is supported by the statements that the supervention of ascites is a late symptom which shortly precedes death, and that the patient rarely survives long enough for a second tapping, that swelling of the feet frequently occurs when there is no ascites, or at an early stage before the ascites has produced any pressure in the abdomen, that pleural effusion is common, that haematemesis is an early symptom, and that very few people die of it. Not one of these statements would be accepted by many physicians of large experience. The mechanical obstruction which occurs in cirrhosis of the liver affords a rational explanation of its symptoms, and such a statement as that patients rarely live long enough to survive a second tapping is inconsistent with daily observation, unless we are prepared unreservedly to accept the author's view that the ascites in the cases that survive is due, not to cirrhosis of the liver, but to chronic peritonitis. The author objects to the Talma-Morison operation, but there seems to be no good grounds for throwing doubts upon the diagnosis in the cases in which it has been successful; he says "probably the patient had no cirrhosis" (p. 168), and, again, "but even if some cases have benefited, we must set against the prolongation of their lives the shortened lives of those in whom death followed the operation." Now, according to Dr. Hale White, a patient with cirrhosis of the liver, in whom ascites has developed, is on the verge of death, "the patient will die within two or three months" (p. 158); and as in none of these cases was the operation performed until the ascites had existed for some time, the charge that it shortened life cannot consistently be made by him. On p. 171 and the few following pages there is a good deal about hypertrophic cirrhosis with which we agree, but as the author heads the section Hanot's cirrhosis, it would have been better if he had given Hanot's title "hypertrophic cirrhosis with chronic jaundice" (cirrhose hypertrophique avec ictère chronique); about this there is no ambiguity, and it is not open to the objection he raises. The opinion expressed, that the cases which French writers have described as hypertrophic biliary cirrhosis were "really examples of the early stage of ordinary cirrhosis" (p. 171), is very open to question, and we do not think the identification of Banti's disease with splenic anaemia is justified.

Dr. RÉNÉ GAULTIER has written a small book on pancreatitis and its relation to calculi of the biliary passages.[5] He distinguishes four clinical types. First, the cases of biliary calculus in which the calculus passes but leaves behind a proliferative pancreatitis which compresses the common duct and causes icterus. Secondly, the cases in which the calculus is arrested in the ampulla of Vater or formed *in situ*, and suppresses the function of the pancreas by compressing the canal of Wirsung. Thirdly, the cases of subacute pancreatitis with haemorrhages and fat necrosis; and, fourthly, the cases of gangrenous and suppurative pancreatitis associated with biliary calculi. The two last are very fatal. The two first tend to pass into a chronic form which destroys the function of the gland. Intervention should be undertaken before this stage is reached. Dr. Gaultier enumerates the following diagnostic points: Pain at the pancreatic point radiating to between the shoulders; frequent vomiting and jaundice, more intermittent than in calculous obstruction; a tumour. He particularizes, however, the information gained by examination of the faeces, and describes a special method. The change in pancreatic disease is in the direction of steatorrhoea and hyposteatolysis. If the diagnosis is established, drainage of the bile ducts is called for, and this is only to be interrupted when examination of the

[4] *Common Affections of the Liver.* By W. Hale White, M.D., F.R.C.P. London: James Nisbet and Co., Ltd. 1908. (Cr. 8vo, pp. 310. 4s. 6d.)

[5] *Calculs des voies biliaires et pancréatites. (Les actualités médicales.)* Par Dr. Réné Gaultier. Paris: Baillière et Fils. 1908. (Cr. 8vo, pp. 96, figs. 16. Fr. 1.50.)

faeces shows that the function of the pancreas is restored. The book is well worth perusal, and the method of faecal examination described appears to be capable of affording important information as to the functional activity of the pancreas.

SURGERY OF THE NERVES.

THE monograph by Mr. JAMES SHERREN, on *Injuries of Nerves and their Treatment*,[6] is a model of its kind. It is both a concise account of the work of others on this subject and a record of personal observation and experiment In the first chapter the author classifies nerve injuries, and enumerates the various methods of their production. He then passes to consider the symptoms resulting from complete and incomplete nerve division. Recent work on the distinction of different forms of sensibility, in which Mr. Sherren himself has had no inconsiderable share, is lucidly explained. The chapters on methods of examination and diagnosis describe how a systematic examination should be conducted, and outline the differential diagnosis between nerve injuries and lesions of the spinal cord and roots, hysterical manifestations, and ischaemic contracture. The whole subject is treated in a practical manner, which will appeal to the clinician. Treatment and recovery occupy the next four chapters, and there are many points in them to attract attention. One of the most important is the record of the failure of the method of using nerves from other animals to bridge gaps in cases of human nerve injury. Auto-transplantation or homo-transplantation the author shows to be the method of choice to restore continuity, the operation being most often necessary in cases of injury to the musculo-spiral nerve, in which case a portion of the radial nerve is resected and sutured into the gap. The subject of regeneration is discussed with admirable clearness, and it is shown how the researches of Langley and Anderson account for the differences between the two schools into which investigators are divided, and support the view that no new axis cylinders are formed in the peripheral end of a divided nerve until it again comes into connexion with the central nervous system. The remainder of the volume is devoted to a detailed description of the effects of injuries to special nerves, cranial and spinal. It is well illustrated by diagrams and photographs, and many clinical histories are recounted. The book has no rival in this country on its subject. It is an addition to medical literature of real importance, and deserves the attention of all who may be called upon to diagnose and treat nerve injuries—in other words, of all practising physicians and surgeons.

[6] *Injuries of Nerves and their Treatment.* By James Sherren, F.R.C.S. London: James Nisbet and Co. 1908. (Cr. 8vo, pp. 310, plates xx, figs. 25. 5s.)

THE STORY OF A "CANCER CURE" AND ITS MORAL.

THE following little history is somewhat instructive. Towards the end of last year we were asked to publish a short paper dealing with a method of treating inoperable cases of cancer. It was a chemical method, which made it attractive, and the author—Mr. Jonathan Becker, M.B.Edin., M.R.C.S., L.R.C.P.—was one of those men engaged in contract and Poor Law practice whose efforts in the way of research it is always pleasant to be able to assist. Moreover, the author's claims were very modest. His results seemed to him promising, but only three cases were deemed by him sufficiently authenticated and of sufficiently long standing to be worthy of report. In addition, he gave the formula by which he prepared his solution, and expressed his readiness to supply fellow practitioners disposed to essay his method with any further details which might seem to them desirable. Hence, after ascertaining that there really was fair ground for assuming that the cases were malignant and that some benefit had followed, even if it did not result from the treatment, we published the cases in the JOURNAL of January 30th, 1909.

In the same issue were published other communications likewise dealing with comparatively novel methods of cancer treatment, and possibly on this account the paper in question was not the subject of either comment or expressed criticism so far as our ordinary readers are concerned.

A few weeks later, however, an account of an interview with the author appeared in the *Westminster Gazette* (February 27th); it was contributed by a correspondent, who stated that he had visited Mr. Becker owing to his interest in "results that hinted a very remarkable advance in a direction in which advance had seemed almost unattainable." The correspondent seems to have found Mr. Becker more communicative on the subject than medical men usually are to representatives of the press in regard to professional matters. Again a few weeks passed, and a further reference to the matter appeared in a French lay paper. In this case the writer spoke of almost miraculous cures of cancer regarded as hopeless, and the reader was invited to believe that the value of the discovery of the "jeune savant" was vouched for by the BRITISH MEDICAL JOURNAL as the outcome of prolonged investigation of its merits, and that its publication had given rise to an immense sensation among medical men in this country. This was a signed article. After a third interval attention was again drawn to the "discovery" in an English lay newspaper, this time in letters signed by the "jeune savant" himself. Formerly modest, he was now boastful. In the short intervening period the only three ostensible cures had multiplied themselves by six, and any failures with the method must be due to ignorance and incompetence.

These remarkable epistles, taken in connexion with their forerunners, and containing as they did distinctly misleading suggestions on the subject of cancer in general, were alone sufficient to give the whole affair a somewhat dubious aspect; but meantime other facts of the same order had come to our knowledge. In how many foreign papers notices of the kind already mentioned had appeared we do not know, but in any case the "discovery" appears to have attracted attention on the Continent; and a letter reached us from a foreign medical man asking for assistance in obtaining the further information promised in the article which had appeared in our columns. He had written to our author several times in vain, and he forwarded the answer finally received. Although this foreign medical man reads and writes English perfectly, the answer was in French, and not written by our author, but by some one apparently acting as his secretary. Instead of giving the information sought, it suggested that the patient should be sent to England to be under our author's own care, and as an alternative hinted broadly that a sufficiently large fee might induce him to go and see it in consultation on the Continent. Strangely enough, the signature to this letter was the same as that at the foot of the article in a French newspaper already mentioned, and turns out to be that of a professional lay journalist. There is something decidedly original in employing such a person to conduct correspondence between medical men about a cancer cure of which one of them is the proud parent.

To complete the tale we have to add that all our endeavours to obtain information required having failed, we had the formula given in our author's paper investigated by an expert chemist, who found that no solution of constant composition could be obtained by means of it. We therefore reluctantly conclude that our author has either been working in ignorance on unscientific lines, or is not prepared to reveal the method of preparing his solution to his professional brethren. In either case we desire it to be perfectly well understood, more especially by foreign medical men, that we in nowise vouch for Mr. Jonathan Becker's "discovery." On the contrary, it seems to us highly probable that the value of the latter, if tested in a scientific fashion, would prove to be *nil*, while it is indubitable that Mr. Becker, by allowing his method to be boomed much after the fashion of an ordinary quack cancer cure, has ill requited the hospitality shown him by this JOURNAL, and gravely lessened the chances of his "discovery" being seriously considered by his colleagues.

We think it our duty to the profession to state clearly that our responsibility in this matter extends no further than the publication of an article by a practitioner whose good faith we had no reason to doubt. This was done in pursuance of the policy we feel bound to adopt of publishing the results of any method of treatment of a deadly disease which seems to offer a reasonable prospect of success.

EPSOM COLLEGE.

SIR HENRY MORRIS, Bart., the Treasurer, presided at the fifty-sixth annual general meeting of the Governors of Epsom College on June 25th. Before proceeding with the business of the day, a cordial vote of congratulation to the Chairman on the well-deserved honour of a baronetcy just conferred upon him by His Majesty the King, was moved by Sir CONSTANTINE HOLMAN, seconded by Sir R. DOUGLAS POWELL, Bart., and carried by acclamation.

The SECRETARY read the following result of the voting for pensionerships and foundation scholarships:

PENSIONERS.

Successful Candidates.	Votes.
1. Devlin, Jane	6,896
2. Slesser, Catharine	6,288
3. Barron, Emily	5,234
4. Mitchell, Joan	4,567

FOUNDATION SCHOLARS.

Successful Candidates.	Votes.
1. Corby, Thomas R. B.... ...	8,864
2. Wreford, Oswald H. V. ...	8,050
3. Hartnett, Laurence J. ...	7,437
4. Fuller, Norman W.	7,115
5. Christie, Donald F.	7,091
6. Corry, Daryll C.	6,816
7. Weatherly, Edward F. C. F. ...	5,897

He further reported that as an additional vacancy for a foundation scholarship had occurred since the voting papers were printed, Selwyn B. G. Simons would be admitted a foundation scholar at the council meeting to be held immediately after the annual general meeting.

In the report of the Council to the Governors attention is drawn to the fact that a sum of £5,498 11s. 9d. was spent last year on extending the buildings at Epsom, including £4,614 15s. 3d. on account of the new Markham Skerritt Science Block. The total assured income of the college (including that from the late Dr. Henry Fearnside's estate, which will shortly be handed over to the endowment fund), after deducting interest on mortgages, is under £2,500 a year, whereas the maintenance of the fifty pensionerships and fifty foundation scholarships requires close upon £7,000 annually. As a consequence the difference between these two amounts—namely, £4,500 a year—has to be made up by voluntary contributions. In an appeal recently issued by the honorary treasurer attention was drawn to the fact that whilst the names of 39,827 persons are contained in the *Medical Register*, under 2,200 medical practitioners—that is to say, only one-eighteenth of the profession—were annual subscribers to the foundation. The Council expressed the hope that the mention of this fact will cause many who have not hitherto supported the institution to realize the importance of its work and give it their support. Under the will of the late Miss Annie Graham Sewell, of Tintoch House, Canterbury, one-fifth of the residue of her estate has been left to the college for the purpose of creating pensionerships, preferentially for the widows and spinster daughters of medical men, and the first presentations to the Brodie Sewell pensionerships will be made by her executors. There are at the present time on the books of the college forty-six ordinary pensioners, nine Pugh pensioners, ten France pensioners, fourteen Da Silva pensioners, three Morgan annuitants, five Highett pensioners, of whom two receive £30 a year and three £10 a year, and one R. R. Cheyne annuitant. The four pensioners elected that day brought the number of ordinary pensioners up to fifty. The new building to provide further class-rooms, better accommodation for teaching science, and a room for day boys, which was referred to in the previous annual report, was opened last March. The laboratories, which are to be called permanently the "Markham Skerritt Laboratories," have been well equipped, and will afford efficient means of instruction in physics and biology. The Council has given careful consideration to a scheme for the provision of further buildings, urgently needed in view of the rapid growth of the school, and have accordingly decided to erect a new gymnasium, new music rooms, and a new workshop, and to provide a central heating plant, having sufficient power to heat all the new buildings, together with Granville House, the large school, and the chemical laboratory. These extensions and improvements will probably cost over £8,000, but the Council feel assured that a consistent and definite scheme of extension is the most economical course, and is confident that the future will prove the wisdom of this policy. That the school is growing in importance and popularity may be seen from the fact that there are now 282 boys in the college, whereas in the same term five years ago there were only 235. The stained glass window erected in the college chapel as a memorial to the late Archdeacon Thornton, the first head master of the college, will be unveiled on Founder's Day. The discipline and general work of the school have been excellent. Games have been played with success, and the usual school institutions are flourishing. The rifle corps has been transferred to the new Territorial Force, as a contingent of the Training Corps for Officers, and consequently all efficient members will now earn the Government grant. Since the last report, H. A. Baylis has won an open classical exhibition at Jesus College, Oxford; J. M. L. Bogle an open studentship at Liverpool University; G. K. Bowes a junior studentship for science at Christchurch, Oxford; and C. A. Mallam a classical exhibition at Keble College, Oxford. Ten boys have passed the whole or a part of the Preliminary Scientific Examination for the degree of M.B., B.S. of the University of London; eighteen boys have passed the matriculation examination of the same university; eleven boys have gained the higher certificate of the Oxford and Cambridge Schools Examination Board; and eighteen have gained the lower certificate.

After the report of the Council and the income and expenditure account had been formally adopted, Dr. F. de Havilland Hall was elected a Vice-President of the college, and formal business was transacted. A vote of thanks to the Chairman, moved by the Rev. E. W. Northey, Deputy Chairman of the Council, brought the proceedings to a close.

RESEARCH DEFENCE SOCIETY.

THE annual meeting of the Research Defence Society was held in the rooms of the Royal Society of Medicine on June 25th. Notwithstanding the inclemency of the weather, there was a good attendance. On the platform were the Earl of Cromer, Sir James Dewar, Sir Arthur Conan Doyle, Mr. Stephen Paget, Count Plunkett, Sir James Crichton-Browne, Sir John Tweedy, Dr. Sandwith, and Mr. Frederick Macmillan. Among those present were Sir James Reid, Colonel Gordon, Lady Scott, Mr. Henry Bonham Carter, Lady Dorothy Nevill, Lady Sutton, Sir Alexander Pedler, Lady Stanley of Alderley, Sir Reginald Talbot, and Mrs. Schomberg Byng. Expressions of regret for inability to attend were received, among others, from Sir L. Alma Tadema, Lord Avebury, Lord Barrymore, Lady Bliss, Lady Brudenell Bruce, Lady Buckley, Lord Robert Cecil, Lord Curzon of Kedleston, Lord Faber, Lord Claud Hamilton, the Bishop of Kingston, Colonel Sir Henry Knollys, Sir Trevor Lawrence, Sir Norman Lockyer, Lord Northbrook, Sir Gilbert Parker, Sir Frederick Pollock, Sir William Ramsay, Mr. Briton Riviere, Miss Roget, the Marquis of Sligo, Sir Frederick Treves, the Duke of Wellington, and Lord Stalbridge.

Report of the Committee.

The report of the Committee presented by the Honorary Secretary, Mr. Stephen Paget, stated that the society had made good progress during the foregoing twelve months. At the time of the inaugural meeting last year there were 1,290 members, of whom 123 were ladies. There were now 2 465 members and 61 associates, making a total of 2,526, of whom 361 were ladies.[1] Branches had been formed at Birmingham, Bournemouth, Brighton, Cambridge (University Branch), Dublin, Edinburgh, Glasgow, Liverpool, Manchester, Newcastle, Shrewsbury, Torquay (Devon Branch), and York. Other branches were in course of formation at Oxford, Ryde, and elsewhere. In the United

[1] On June 25th the exact number was 2,560 members and 61 associates making a total of 2,621, of whom 374 were ladies.

States a system of research defence had been organized in New York, Boston, and elsewhere, after the example of the society. During the year the educational work of the society had been considerable. Besides a great number of letters and articles in newspapers and magazines, various publications had been issued, and a further series of pamphlets was in preparation. Representatives of the society had attended many debates in London and elsewhere, and the results had been very satisfactory. Many sets of pamphlets had been sent to persons wishing to speak in debates. Many lectures had been given, most of them illustrated with lantern slides by Dr. Morgan Jones, Mr. Armit, Major Elliott, Mr. Hodgson, Dr. Duke Turner, and Mr. Stephen Paget. These lectures, with such titles as "Pasteur's Life and Work" or "Some Modern Ways of Fighting Disease," or "What we Owe to Experiments on Animals," have been given at Cambridge, Oxford, Eton, Radley, Dulwich College, King Edward School, Birmingham, Bedford College for Women, London School of Medicine for Women, Royal Naval Academy, Bognor, Chiswick, Ealing, Croydon, Purley, Ilford, Chelmsford, Bournemouth, Shrewsbury, Exeter, York, and elsewhere.

Speeches.

The Earl of Cromer said that any one who reflected on the methods now commonly adopted by those who carried on the work of political propaganda could not but come to the conclusion that the members of the Research Defence Society laboured under some serious disadvantages. They were not sensationalists. Some few years ago the Lord Chief Justice of England stigmatized a notorious antivivisectionist book as "an hysterical work." The members of their society did not suffer from hysteria. He did not know what the medical antithesis of hysteria was, but if there were an expression which conveyed this idea, he would say that it was a quality possessed in an eminent degree by the members of their society. For want of a better and more scientific expression, he would say that he thought they were eminently sane. They could not attempt to emulate, still less to rival, the proceedings of those who thrilled the minds of the public with the imaginary tortures inflicted on a brown dog. They did not plaster the railway stations of the metropolis with caricatures of Mr. Stephen Coleridge and his allies. On the other hand, surely they might appeal to the healthy imaginations of the greater body of their countrymen and countrywomen in the interests of humanity, for he was very strongly of opinion that it was they and not their opponents who were acting in the true interests both of the human and of the animal race. Consider the lifelong, the unselfish, and often wholly unrewarded, labours of that long roll of illustrious men, from Harvey to Pasteur, who, by patient study, careful observation, and the exercise of supreme intellectual powers, had, sometimes at the risk of their own lives, warned death from the doors of numberless homes and had vetoed the separation of husband and wife, mother and child, brother and sister. Why should all sympathy be reserved for the very few members of the brute creation who had been the necessary victims of science, whilst nothing but obloquy was poured on those who, in reluctantly sacrificing victims, had conferred benefits the nature of which it was impossible to exaggerate, not only on the whole human race, but on the animal kingdom. Whilst, however, condemning the methods of some of their opponents, he believed every member of their society fully sympathized with the general objects which they had in view. For his own part, he was glad that antivivisection societies existed. It might be that in some rare instances physiologists, carried away by the excitement of the struggle in which they were engaged, might lose sight of that aspect of the question to which the more moderate members of the antivivisection societies very rightly and naturally wished to draw attention. It was well, therefore, that the physiologist, in conducting his experiments, should always remember that he was acting in the presence of the enemy, and that a number of critics were on the watch who would be little inclined to show him mercy should he inadvertently pass the narrow border-line which separated the infliction of suffering which was justifiable from that which could not be justified. All that could be said on this subject for the purpose of his present argument was that if it was justifiable to inflict death and pain on animals in any circumstances, surely the justification assumed the form of absolute proof when the death or pain was inflicted in the interests of humanity. If any one would take the trouble to read the voluminous evidence presented to the Royal Commission on Vivisection he would find that there was not a single alleged case of extreme and unnecessary cruelty brought forward by the Antivivisection Society which did not hopelessly break down under cross-examination. They did not pretend that suffering, whether by inoculation or vivisection, was not inflicted on animals. What he said was that suffering was reduced to a minimum, and, moreover, that that irreducible minimum was justified by the results obtained. It could be proved up to the hilt that experiments on living animals had prolonged human life and had relieved human suffering. Even a layman could judge of the extraordinary results achieved in a few important cases. The antiseptic method, which had reduced the mortality in lying-in hospitals from as much as 40 per cent. to 0.2 per cent., was the direct outcome of the experimental method. Were the lives of the rabbits sacrificed by Villemin in 1864 and Koch in 1878 to be weighed for one moment in the balance in comparison with the marvellous discoveries in connexion with tuberculosis made by those eminent physiologists? These discoveries had created nothing less than a revolution in social hygiene, and in this country had reduced the mortality on account of this terrible disease to an enormous extent. Moreover, as a consequence Koch was able to discover the substance now called "tuberculin," by the use of which it was possible to ascertain whether cows were tuberculous or the reverse. It would be difficult to exaggerate the importance of this discovery. But perhaps the most striking instance was that of the application of serumtherapy to diphtheria. One had only to study the figures both in London and in Paris to be assured of the fact that since the introduction of antitoxin the mortality through this terrible disease had been enormously reduced. Take, again, the case of Malta fever. As a direct result of the experimental method it had been extinguished. The naval and military hospitals, Sir David Bruce reports, "are almost empty, and the island has become the healthiest of garrisons." Formerly this severe and dangerous disease accounted annually for 75,000 days of illness. The researches of Dr. Simon Flexner and Dr. J. A. Jobling, had enabled the mortality from that terrible complaint, cerebro-spinal meningitis, to be reduced by more than 50 per cent. Did not these striking results speak for themselves? Bacteriologists were constantly being taunted with the fact that they had not yet discovered a cure for that terrible scourge—cancer. Dr. James Ewing, Professor of Pathology at the Cornell University Medical College, speaking on this subject, asked: "What is the reason why medical science has always branded this field as a barren territory? It is because the method of study by means of animal experimentation was not thought applicable to the subject of cancer. Diphtheria has been cured, because we can reproduce the disease in animals, study its progress under controllable conditions, and test for its cure the antitoxic agents prepared according to the accepted theories of the laboratory. None of these methods was thought applicable to the study of cancer." For the last five years the system of animal experimentation had been introduced into this field. Five years, as Dr. Ewing very truly said, was a short period in medical history. It took nearly ten years to perfect the antitoxic treatment of diphtheria, which was a comparatively simple problem. Yet the results so far obtained were by no means unsatisfactory. Professor Ehrlich, the leader of German Cancer Research, held the opinion that "the beginning of the end of the cancer problem is in sight," and added, "How long that end may be delayed will depend much on the attitude of the public towards the experimental method in medical and biological research." It was almost inconceivable that any body of thinking men and women could hesitate for one moment to sacrifice the lives of a certain number of mice, rabbits, and rats, if the least chance existed of eventually finding a remedy for this terrible scourge—a scourge which not only caused death, but killed the victim under conditions of pain infinitely greater than that inflicted by any experimentalist in his

laboratory. Members of their society appealed not to the lovers of sensation but to the humanity and reasoned judgement of the thinking portion of the community, and they believed that that appeal would not be in vain.

Sir JAMES DEWAR, in moving the adoption of the report, held that experimentation on animals was absolutely necessary for the future extension of knowledge.

Sir ARTHUR CONAN DOYLE remarked that it was not science, but only common sense, that was needed to tell a man that the experiments had to be carried out, and the question was whether they should be done upon human beings or upon animals. He referred to a picture exhibited at railway stations in which a melodramatic dog was represented kneeling in front of a "bloody-minded vivisector." When he saw that picture he felt that he should like to possess the original block from which it had been struck. If he possessed it the last thing he would dream of doing would be to destroy it. What he would like to do would be to get a competent artist to finish it as it was in his mind. He would leave the dog, but he would put in a poor mother leaning over her child, who was dying of diphtheria or some preventable disease, and ask, "Which is it to be?" and under that picture he would put three plain questions: First, Which should perish, the higher or lower organization? Secondly, Which is the better—that one should die or that tens of thousands should find a mode of life? Thirdly, Which is better—that one should perish painlessly under chloroform, or that others should die in the agonies of a long-drawn-out disease?

The Hon. WALTER GUINNESS and Professor STARLING also spoke.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

THE annual general meeting of the London and Counties Medical Protection Society was held at 31, Craven Street, Strand, on June 23rd. Dr. G. A. HERON, who was in the chair, in moving the adoption of the annual report of the council, which was unanimously passed, referred to the working of the Midwives Act. He said that from correspondence with members of the society it was evident that the reason why the Midwives Act did not work smoothly in many parts of the country was because medical men had found that though midwives were willing to avail themselves of their services, a fee was not forthcoming. In various parts of the country steps were taken to secure payment of these fees. In one district where that was done effectually the medical men concerned had found that their services were utilized by the midwives without any hesitation, but that it was no one's business to pay; the doctors thereupon gave notice to the local authorities that they would not obey the call of the midwives unless payment was guaranteed. The local authorities applied to the Local Government Board, and were told that that Board had nothing to do with the matter. The end of the dispute was that the doctors' combination did not fail; not one of them withdrew from the contest, as so often happened in other cases, the result being that the local authorities were obliged to guarantee payment of fees to the doctors when called in by midwives. Since that time the Act in that particular district had not only worked smoothly but very well indeed. The ensuring of the smooth working of the Midwives Act rested on the goodwill of the medical men, and, provided the matter was put before the local authorities in the proper way, fees would be paid. The Chairman concluded his remarks by congratulating the members on the favourable financial position of the society.

The annual report of the council contained reports of a number of cases in which members had received assistance and advice from the society. In one instance a member of the society attended a number of people brought to him in a motor 'bus belonging to an omnibus company, which had collided with a van, causing injuries to several passengers. The member sent in his account to the omnibus company, but received no reply beyond an acknowledgement. Later on he wrote again to the company, and received a reply saying that the company declined to entertain his claim, and that he must ask the patients to pay his bill; the omnibus company had settled with them. The member was advised that he might succeed against the company, under the circumstances, if he sued it; but that in future he should require a distinct understanding that the company or its official would pay him, before attending to injured persons, from whom payment in many cases could never be obtained. Tram and omnibus companies were in the habit of disowning liability for services rendered at the request of their officials, and medical men ought to refuse to be imposed upon. In another case advice was given to a member in reference to obtaining payment for medical advice to a wife separated from her husband, who had been in receipt of an allowance from her husband until her death. The member was advised that he had no chance of recovering his fees from the husband unless he could prove that the husband was in arrear with the payment of the maintenance allowance to his wife. So long as the parties agreed to live apart on the condition that the husband paid the wife a settled allowance for her maintenance she could have no authority to pledge his credit, even for necessaries, as long as he kept up his payments and carried out his contract. The expenses of the wife's burial were upon a different footing, and it had been laid down in the case of Jenkins *v.* Tucker that the husband was always liable for the cost of burying his wife, whatever her means, and whether they were living together or apart. Under the heading of negligence or unskilfulness a great many instructive cases were given in the report, and one dealing with radium was dealt with in the following way: Payment of a member's account was refused on the ground that his treatment of a boy's face with radium had caused permanent disfigurement. The patient's mother (a widow) was told that the member wished to deal generously with her, if she gave her assurance that she did not impute to him negligence or want of skill in his treatment of her son, although the result of the treatment had not been as good as could have been wished. The required assurance having been given, the member withdrew his claim for the amount due for medical services, and the matter was brought to a friendly conclusion on that basis.

THE value of the screen in the diagnosis of internal diseases is still doubted by many except when the shadows of internal organs can be intensified by bismuth, when the most sceptical probably cease to doubt. A recent discussion at the Berlin Medical Society revealed a good deal of difference of opinion regarding its value in the diagnosis of tuberculous disease of the lungs, although it found a steady advocate in Dr. Max Wolff, who held it to be as valuable as the older physical methods or the tuberculin test. Where auscultation and percussion gave a negative or doubtful result in the first stage of tuberculosis he had found radioscopic examination to show either diminution of the respiratory movements at the apex, or lowering of the affected apex, or loss of transparency of the pulmonary tissue during inspiration, and as the lesion progressed these radioscopic indications were subsequently confirmed by auscultation and percussion. Dr. Goldscheider said that in his own experience he had always found the ordinary physical signs present where the radiographic signs were even less definite than those described by Dr. Max Wolff, except when the lesion consisted of small disseminated foci in the region of the second and third intercostal spaces. Drs. Vaquez and Bordet (*La Semaine Médicale*, May 12th, 1909) claim for radioscopy definite merit in the differential diagnosis of diseases of the heart, especially in mitral stenosis, as the dilatation of the left auricle can be clearly recognized. The shadow of the heart as seen from the front corresponds closely to the limits defined by percussion; but if the thorax is examined obliquely at an angle of 40° to 50°, with one shoulder of the patient against the screen, in the normal thorax a clear space is seen between the shadow of the spine and the heart. But in mitral stenosis with marked dilatation of the auricle this space disappears, or is more or less diminished in breadth. The advantage over percussion is that if the patient has a well-developed thorax with the heart lying some distance from the posterior wall the dullness between the spine and the scapula produced by a dilated auricle may be absent. When dullness is caused by enlarged lymphatic glands the fact can be detected by radioscopy. Application of the method is not without its own difficulties, such a condition as large mammae in a woman rendering oblique radioscopy impossible or very difficult, and in any case the correct reading of the shadow requires care and practice.

SEVENTY-SEVENTH ANNUAL MEETING

OF THE

British Medical Association.

AT BELFAST, JULY, 1909.

A Guard'an of the Peace.

QUEEN'S COLLEGE, Belfast, will be the centre of the Seventy-seventh Annual Meeting of the Association, and in it most of the meetings will be held, all the Sections will meet, and some of the addresses will be delivered.

The college, which has just become an autonomous university, the Queen's University of Belfast, is a handsome building of red brick and freestone, standing in good grounds on the south side of the city, about a mile from Castle Junction, the centre. The history of the college and medical school and the allied hospitals has already been given in articles in the JOURNAL on December 5th, 1908, and January 2nd, 1909.

Since the Association met in Belfast, twenty-five years ago, eight new laboratories and several class-rooms have been added, so that all the Sections can now be conveniently housed in the college. The Council will meet there also, the addresses in Medicine, Surgery, and Obstetrics will be given there, and there the reception rooms and all offices will be found. Adjoining the college grounds is the Exhibition Hall, where the Annual Exhibition of Instruments and Drugs will be held. Less than a mile from the college, and only five minutes by tram, is the Presbyterian Church House and Assembly Hall, in Fisherwick Place, and in this most commodious building the Representative Meeting will take place, as also the General Meetings, President's Address, and Popular Lecture.

Belfast Harbour.

The two large general hospitals, the Royal Victoria and the Mater Infirmorum, are situated respectively in Grosvenor Street and the Crumlin Road, each within a mile of the centre of the city. Sketches of these and of the various special hospitals appeared in the JOURNAL for January 2nd.

The chief hotels, with the exception of the Station Hotel at the Midland Railway Station, York Road, are close to Castle Junction, within seven minutes of the college by tram, and within five to ten minutes of the railway stations and quays.

GENERAL ARRANGEMENTS.

Every effort has been made to give plenty of room, not only in the Sectional Meetings but outside them also, and specially in the reception, reading, writing, and smoking rooms, and in the rooms for ladies.

On entering the main door of the college, one finds oneself in the entrance-hall, with the bookstall for the sale of daily papers, etc., opposite one, and on each side of it doors into the cloisters. Immediately to the right is the porter's lodge, with telephone, and to the left is the typewriting room. Turning to the right, one passes between the lodge and the stairway to various rooms mentioned later and enters the great hall. In this hall are the counters for registration, the issue of tickets for entertainments, excursions, etc., the post office, and a travel bureau worked by Messrs. Thomas Cook and Sons to aid members in planning tours. Then at the upper end of the hall, under the organ, are tables and chairs where members may await friends or read the daily papers. On one side of the hall is a door opening on to the south cloister, and at the end of this cloister are the rooms where the Sections for Navy and Army and for Diseases of Children will meet, and the back entrance to the ladies' rooms, which also open to the south front of the college.

Coming back to the stairway off the entrance-hall and ascending it, we reach first the Honorary Local Secretaries' office, where some one will always be in waiting to give help where needed; and from this floor there is an entrance to the tower—worth ascending on a fine day, for the sake of the view of the city and surrounding country. On the same floor are two other doors—a large one opening into the natural history museum, and one on the right leading to the biological laboratories. These laboratories are on two floors; the first will be the reading and writing room (where silence is to be observed), and in the second, which is in several sections, various offices will be provided for officials.

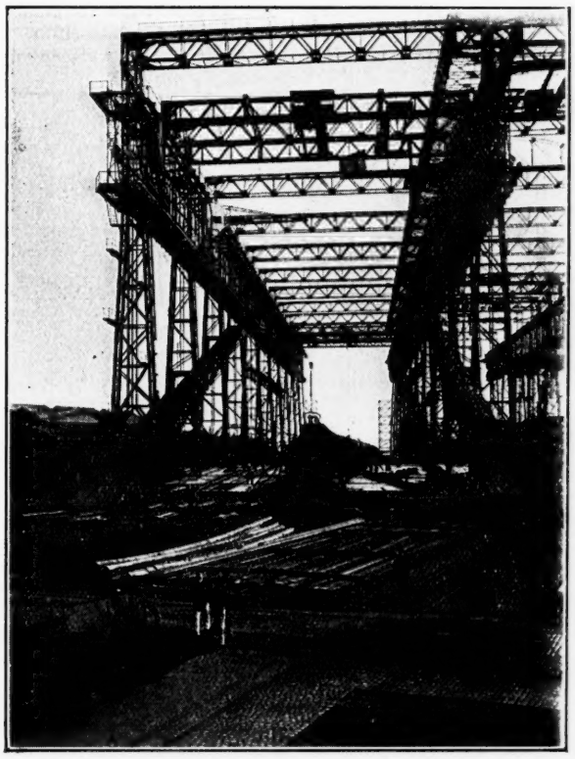
On the north cloister are to be found the Sections of Dermatology, Tropical Diseases, Public Health, Obstetrics and Gynaecology, Psychological Medicine, and Pharmacology, and at the end of the cloister is the smoking-room. Beyond the north cloister a new wing of the main building runs out (housing the engineering department), and in it will be found the Medical Secretary's office and gentlemen's cloak rooms and lavatories.

As one stands on the cloisters and looks out to the east two blocks of buildings are seen, an old and a new. The old is the main medical building, and in it are the Sections of Surgery, Laryngology, and the new Section of Haematology and Vaccine Therapy, and also the Pathological Museum, which will occupy the Medical Museum and the dissecting room. The other building seen to the left of this is the block which houses the chemical, physiological, and pathological departments of

the university. The first door in this block leads to the room for the secretaries of Sections and to the Medical Libraries Association's exhibit, both on the ground floor; while upstairs are various offices. The second door leads to a large lecture room, where the Section of Medicine will meet; the third door leads to the Section of Anatomy and Physiology on the ground floor, and the Section of Pathology upstairs. The fourth door leads to the Section of Ophthalmology.

Between the main building and the block just described is an arched gateway, beyond which, in a separate building, is the University Library, and here the Council will meet in the mornings, and later in the day the addresses will be delivered.

Beyond the library a gate leads out of the college grounds into University Square, which in the last few years has come to be the medical centre of the city. At the north-east corner of the grounds, looking on to University Square, is another detached building, the Students' Union, which will be the centre of the catering department. There will be a luncheon tent beside it, and in the Union tea and light refreshments will be served.



The Keel of a Fifty Thousand Ton Steamer, Messrs. Harland and Wolff's.

The Annual Exhibition of Instruments and Drugs will be held in the Exhibition Hall, at the south-east corner of the college grounds, and reached from the main building by the path running past the right-hand side of the medical building.

The Representative Meetings, the General Meetings, the President's Address, and the Popular Lecture will all be in the Assembly Hall in Fisherwick Place, as already noted. This fine hall has ample accommodation for committees, etc., as well as for large meetings, and is most conveniently situated, close to the Great Northern Railway Station, and within less than five minutes' tram run alike of the centre of the city and of the college. All trams marked "via Great Victoria Street" pass it, as do also Springfield Road trams, and those marked "via Bedford Street" pass within one minute's walk of it. From the college any tram running into town may be taken, and from Castle Junction, the centre of the city, there is a choice of five different trams passing by or close to it.

A Launch at Messrs. Harland and Wolff's.

Club Privileges.

The Committees of the Union and Reform Clubs have kindly arranged to make all members of the Association honorary members during the time of the meeting, with the usual proviso that they reside at least fifteen miles from Belfast.

Boating.

The Belfast Boat Club, which has a commodious club-house on the River Lagan, within a mile of the college, has arranged to make all members of the Association honorary members during the meeting.

ROUTES TO BELFAST.

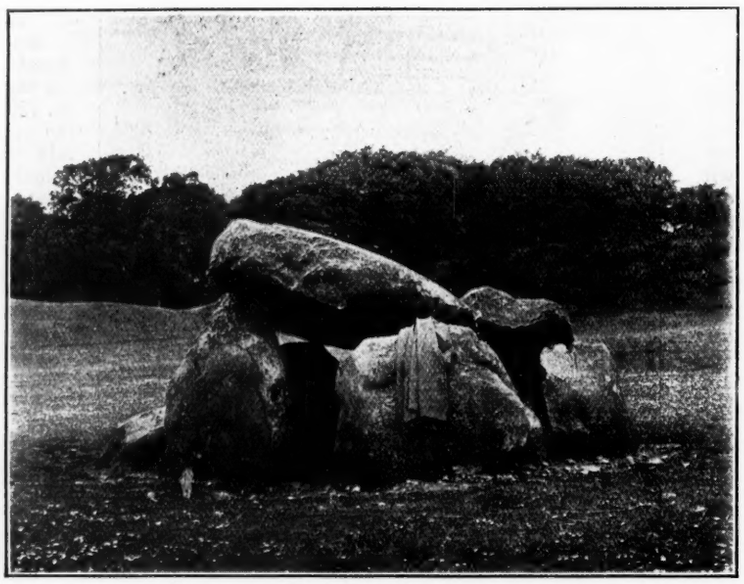
Some information on this head has already been given in the JOURNAL (1908, vol. ii, p. 1690), but it may be useful to recapitulate. There are six different routes commonly used in reaching Belfast from Great Britain, three being direct sailings to Belfast, and three being to other Irish ports, involving a railway journey after landing. The choice will depend on the point from which the start is made, some routes being more convenient for some districts than others, and also on the views of the passenger as regards the sea, for some routes involve a longer sea journey than others The three direct routes are from Liverpool, Fleetwood, and Heysham, all served by dining-car trains leaving London at 5.30 to 6 o'clock. The boats sail before midnight, and reach Belfast at about 6 a.m. the next morning. The Fleetwood route is served specially by the London and North-Western and by the Lancashire and Yorkshire railways, the Heysham route by the Midland railway, and the Liverpool route by all lines having termini in that city. As regards comfort there is practically nothing to choose between them; all have large, fast boats, and a sea passage of six to eight hours.

Those who dislike the sea, and prefer a land journey, or who like to travel by day, are advised to choose the route by Stranraer and Larne, by which there is a double service each way daily in summer. Leaving Euston at 10 a.m. by dining-car train via Carlisle and Dumfries, a most picturesque run after passing Preston, the boat is taken at Stranraer for the two hours' crossing, half an hour of which is in the sheltered waters of Loch Ryan. On landing at Larne, a small port in County Antrim, there is a run of thirty-five minutes by rail to Belfast, which is reached at 10 p.m.; or, leaving Euston at 8 p.m., and travelling by sleeping car if one chooses, Belfast is reached at 8.35 a.m. The daylight service is particularly suitable for the north of England and the south of Scotland, as by leaving Edinburgh or Glasgow in the afternoon Belfast is reached at 10 p.m.

Another short sea route is via Holyhead and Kingstown, which is the mail route, with very fine boats. The sea passage is about three hours, and the railway journey to Belfast about three more; there is a daylight as well as a night service. This route and the next mentioned are served specially by the London and North-Western railway, which enjoys a monopoly of the Holyhead train service.

The last route is a favourite tourist one, via Holyhead and Greenore; leaving London (Euston) at 7.30 p.m. and travelling by dining car to Holyhead, there is a sea crossing of about four and a half or five hours, and the passenger lands at the picturesque port of Greenore, in County Louth, whence it is a run of an hour and a half to Belfast.

The fares by all three direct routes, and by Greenore, are the same, while by Stranraer and by Kingstown they are a little higher, the difference in a London ticket being about 10s. third class and saloon return and 15s. first class. It may be remarked here that though third class on the train is quite comfortable, it is wiser to take the saloon ticket on the boat. If the sleeping-car is taken on the night journey either to Stranraer or Holyhead, 10s. extra is paid each way on a first-class ticket.



Cromleach or Druid's Altar, Giant's Ring, near Belfast.

MOTORS.

The question of bringing motors to Ireland was referred to at some length in an article on "Touring and Sport in Ireland" in the JOURNAL for June 12th. Briefly, it may be said that the tariff on the cross-channel steamers is very moderate, and that motors are well cared for and carefully handled on all of them. Through the country generally there is ample supply of petrol, good garage, and facilities for repairs.

Cottage on Cave Hill, Belfast.

ENTERTAINMENTS.

Members attending the Belfast meeting will have no lack of occupation in the afternoons, as a full programme has been arranged from Tuesday to Friday. The details as to hours, etc., are published in the SUPPLEMENT, and the latest information will be found from day to day in the *Daily Journal*, but a preliminary sketch of what there is for the members to choose from in the way of entertainment may interest some.

Each afternoon there will be visits to various industrial concerns, and members will be able to see in operation the trades that have made Belfast famous and prosperous—linen manufacture and shipbuilding, and others which add to the prosperity of the city, such as rope making, tobacco manufacture, and distilling. On Tuesday afternoon there will be an excursion by steamer to the harbour and docks, and the Chairman of the Harbour Commissioners will give tea on board. The same afternoon there will be a reception at the Mater Infirmorum Hospital, and another at the Whiteabbey Sanatorium.

On Wednesday afternoon the President and Lady Whitla will entertain the members at a garden party at Lennoxvale House, the beautiful grounds of which will accommodate a large number of guests. It is only ten minutes' walk from the college. On Wednesday evening the annual dinner will be held in the Ulster Hall, and during it the local members will give a ladies' reception in the Opera House, when two plays will be performed by the talented members of the Ulster Literary Theatre, and visitors will enjoy a lifelike picture of the farming classes of Ulster. Every lady who is registered as accompanying a member to the meeting will receive an invitation to this reception for herself and a friend, either lady or gentleman.

On Thursday there will be, as already announced, a cricket match at the North of Ireland Cricket Club's grounds at Ormeau, ten minutes' walk from the college. Playing members will be entertained to lunch, and spectators to tea. A garden party will be given that afternoon by Sir Thomas and Lady Dixon at Hillsborough Castle, reached by train from the Great Northern Railway station in twenty-five minutes. Also on Thursday afternoon there will be a reception at the Royal Victoria Hospital, given by the Chairman of the Board of Management, when members will have an opportunity of seeing through this fine building. On the same afternoon there will be a drive through some very picturesque country near Belfast, visiting the Forster Green Hospital and Sanatorium, Belvoir Park, where Mrs. Walter Wilson will entertain the members to tea, and her son will show the model dairy, after which the drive will be continued to the Municipal Fever Hospital at Purdysburn, a fine hospital built on the most recent lines, and thence back to the college.

On Thursday evening the Lord Mayor will give a reception in the City Hall, and members will have the pleasure of seeing this really splendid building at its best, lit with a

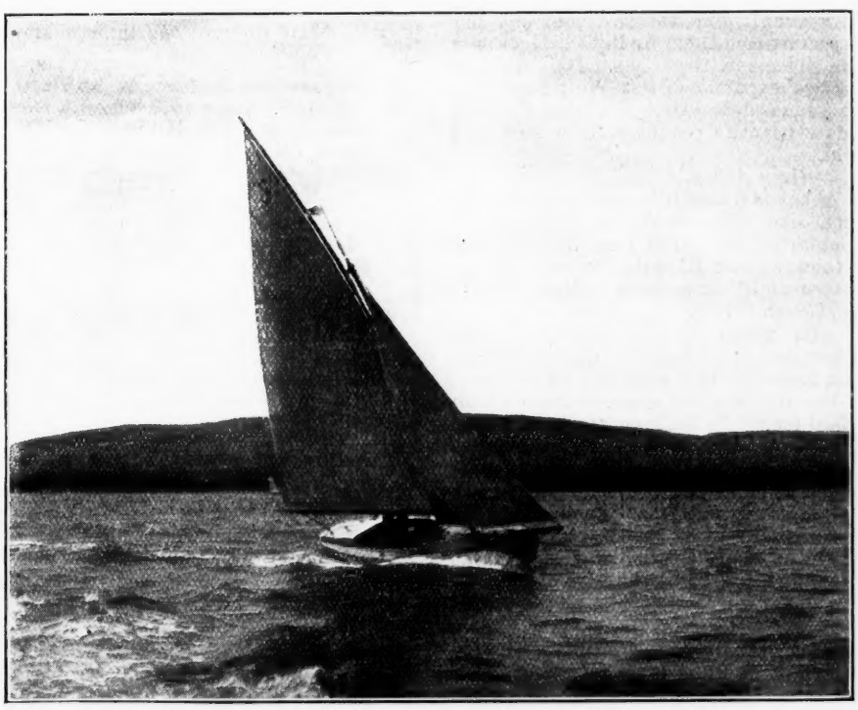
blaze of electric light, and filled with guests. It is particularly requested that academic dress or uniform will be worn at this as well as the Friday evening reception.

On Friday there will be the golf match at Newcastle, County Down, for the Belfast Cup presented by the Ulster Medical Society, and described and pictured in the JOURNAL for June 12th, p. 1426. Competing members will be entertained to lunch and tea at the club house. On the same day a garden party will be given by the Royal North of Ireland Yacht Club at their club house at Cultra, on the shore of Belfast Lough, with races for members, as noted below. There will also be a garden party at Cabin Hill, Knock, given by Mr. R. J. McMordie; this is easily reached by tramcar.

The Cliff Path, the Gobbins, County Antrim.

On Friday evening the President and members of the Ulster Branch will entertain the Association at a garden party in the botanic gardens adjoining the college. The grounds and beautiful fernery will be illuminated, and there will be ample accommodation in tents and conservatories in case the evening should be wet.

All the golf courses in the neighbourhood will be open to members every day during the meeting, as will also the ground of the Belfast Bowling Club, just beside the college, and members wishing to avail themselves of any of these, or to have a day's trout fishing on some of the numerous streams of Antrim or Down are invited to apply to the Honorary Local Secretaries, who will put them in the way of getting what they want.



Belfast Lough "One Design" Boat, Class 3.

The member who has attended the Sectional Meetings and has gone the round of the entertainments will probably agree with us if we prescribe "rest and change of air" for him, and a short account of where these may best be obtained will be useful.

THE TRAM SERVICE AND SHORT EXCURSIONS.

Belfast is blessed with an excellent service of electric trams—quick, clean, and cheap. The meeting point of all the lines is Castle Junction, where Donegall Place, Castle Place, and Royal Avenue meet, and which is one minute's walk from the Grand Central and Royal Avenue Hotels. From here a penny fare takes one about a mile and a half out, while a twopenny fare takes one in any car from end to end of the line, as far as it goes—in some cases about six miles—but without any transfer to other routes. The cars from the Junction which pass the college are those to Stranmillis and Malone Road, some going via Great Victoria Street and some via Bedford Street, the two lines meeting before they reach the college.

Belfast is situated at the head of Belfast Lough, at the opening of the valley of the River Lagan, between two ranges of hills, so is happy in the possession of very beautiful surroundings, and any visitor who cares for scenery should certainly explore these to some extent. A general idea of the situation of the city may be had from the tower of Queen's College or from the roof of Messrs. Robinson and Cleaver's premises in Donegall Place, which are freely opened to visitors. Almost any tram line will take one to pleasant country, but several runs are to be specially recommended.

Ligoniel is a manufacturing village high on the slopes of the hills to the west of the city, and is reached by a tram which passes the college every ten minutes. After passing through the centre of the city, the line traverses a dull working-class district, then comes out on a well-wooded road, with beautiful views of the hills on the left. When Ligoniel is reached, one may walk through the village up a steep hill, and on attaining the top, about half an hour's stiff pull, one has a fine view of Lough Neagh, the largest fresh-water lake in the United Kingdom. Or one may avoid the village, alighting from the tram at the corner, where it turns up the village street, and walk by the Horse Shoe Road, turning off it to the right after passing the water reservoir, about a mile or less out, and so easily reach the Cave Hill, from the top of which a splendid view of the city and Belfast Lough is enjoyed, and on a clear day the Scottish coast and the Isle of Man are easily seen.

The *Antrim Road* tram runs out to the base of the Cave Hill, and is continued by the Glengormley tram, running round the base of the hill several miles into the country, with pretty view of the lough.

The *Falls Road* tram runs out to the foot of the hills also, but to the south-west. Any one wanting fresh air cannot do better than take this tram to the Falls Park, and walk up to the top of the park, less than a mile. A fine view of the city and neighbourhood is got, and the Mourne Mountains, the highest hills in Ulster, are seen to the south east.

The *Malone Road* tram, which runs past the college to the left, takes one in a few minutes to a very picturesque stretch of country. Just beyond the end of the tram line one has a fine view over the Lagan Valley, and if one continues up the road for about three-quarters of a mile (taking the left-hand road, marked "Comber" at the fork), one crosses the river into County Down, getting a beautiful view from the bridge, with the river in the foreground and the Cave Hill in the distance. About a mile further on, turning to the right after crossing the bridge, is the Giant's Ring, which should certainly be visited. For those who do not care to walk, an excursion to it by car makes a very pleasant two hours' drive, giving time to explore this interesting place. There is a fine cromleach or Druidical altar, surrounded by a great earthen rampart or ring with several nicks or indentations in its edge, one of which shows just to the left of the stones in the photograph. These indentations were probably connected with observations of the rising and setting of the heavenly bodies, by which the Druidical rites were timed.

Whitehead and the Gobbins.

There are two very delightful seaside walks on the County Antrim coast, at the opening of Belfast Lough, either of which may be taken in a morning or afternoon —Whitehead and the Gobbins. Both are reached by the Midland Railway from York Road Station, the former to Whitehead Station in half an hour, the latter to Ballycarry Station in five minutes more. In both cases the walk is about three miles, but the Gobbins also involves a three miles' drive from the station to the far end of the path, whereas at Whitehead one walks the whole way, beginning and ending at the station. The railway company has smoothed the paths and carried them by light bridges over otherwise impassable chasms in the rocks. It is hard to choose between the two excursions, but Whitehead is a little the easier path and needs less time, while the Gobbins takes one through more beautiful country, is wilder, and more out of the world.

Grey Abbey.

The road to Grey Abbey is a favourite one with cyclists and motorists, being, like other roads in that part of County Down, particularly good. One may also reach it by taking train to Newtownards (County Down Railway), a flourishing little town eight miles from Belfast, at the head of Strangford Lough. It is one of the centres of cottage industries, and many of the inhabitants are engaged in handloom weaving of hospital quilts. Dominating the little town is Scrabo Hill, crowned by a tower, and in the face of the hill are the quarries from which much of the stone used for public buildings in Belfast has been hewn. From Newtownards the road runs six miles down the east shore of Strangford Lough, passing Mountstewart, the fine seat of the Marquis of Londonderry. At Grey Abbey is a picturesque old ruin, much prized in Ulster, where such ruins are rare, though very meagre compared with the ruins of many English abbeys. It was a Cistercian abbey, founded in 1193 by the wife of John de Courci.

Cultra and Belfast Lough.

The shores of Belfast Lough are plentifully sprinkled with villages and small towns, most of which are practically suburbs of the city. Those on the north shore are reached by the Midland Railway from York Road Station, and among them is the historic town of Carrickfergus, which gave the name of Carrickfergus Bay to Belfast Lough long before Belfast was heard of. It still boasts its picturesque old castle, and its church with monuments of the Chichester family, once all-powerful in Ulster. Beyond Carrickfergus are Whitehead and the Gobbins, already referred to.

The south shore of the lough, reached by the County Down Railway from the County Down side of the harbour, is much more thickly populated, and shows a succession of villages, villas, and mansions from the outskirts of the city to Bangor, twelve miles off. About halfway down is Cultra, where is situated the head quarters of the Royal North of Ireland Yacht Club. This is the great centre of small-boat sailing—meaning by small boats those managed entirely by amateur sailors without professional aid. Races are held nearly every Saturday during the season for "one design" classes, all the boats in a class being of similar design, so that the result of the race depends only on the skill of the crew. Among the regular sailing members of the club are a number of medical men, and they have arranged the garden party referred to above, and races for visitors. Members of the Association who would like to sail a boat in one of these races are asked to send their names to the Honorary Local Secretaries before the meeting, and arrangements will be made for their accommodation, as far as numbers will allow. There is a fleet of some fifteen boats in Classes 2 and 3 of the "Belfast Lough One Design" boats, which will be placed at the disposal of visitors on Friday afternoon, and given fine weather the function ought to be both pleasant and picturesque.

It only remains to add that every member of the British Medical Association who comes to the Belfast meeting will receive a hearty Irish welcome.

RAILWAY FACILITIES.

Members wishing to take advantage of the special concessions granted to the Association by the railway companies should be careful to fill up and forward to the address shown the notification of their intention to be present in Belfast, which was published in the JOURNAL of June 19th, p. 1523, and is republished this week in the advertisement sheets (p. 9). The railway voucher or vouchers will then be issued to the applicant from the central office. The special terms arranged this year are unusually favourable, as a return ticket issued at the rate of a single fare and a quarter will be available from Thursday, July 22nd, the day before the Annual Representative Meeting, until the end of August.

THE PATHOLOGICAL MUSEUM.

THE following Committee has been appointed to organize the pathological museum:

President: Professor W. ST. CLAIR SYMMERS.
Honorary Secretaries: THOMAS HOUSTON, M.D.; W. J. WILSON, M.D.

J. S. DICKIE, M.B.
ROWLAND HILL, M.B.
C. G. LOWRY, M.D.
J. E. MACILWAINE, M.D.
JOHN M'LEISH, M.B.
W. J. MAGUIRE, M.D.
J. C. RANKIN, M.D.
FRED. SMYTH, M.D.
ERNEST WALES, M.D.
J. SINGLETON DARLING, M.D. (Lurgan).
C. H. P. D. GRAVES, M.D. (Cookstown).
Professor MCWEENEY (Dublin).
Professor MOORE (Cork).
C. H. NESBITT, M.D. (Randalstown).
Professor O'SULLIVAN (Dublin).
R. T. ROWLETTE, M.D. (Dublin).
Professor WHITE (Dublin).
JOHN WILSON, M.D. (Castleblayney).

EX-OFFICIO MEMBERS.

The President-elect: Sir WILLIAM WHITLA, M.D., LL.D.
The Local Honorary Treasurer: JOSEPH NELSON, M.D.
The Local Honorary Secretaries: H. L. MCKISACK, M.D.; C. E. SHAW, M.D.; HOWARD STEVENSON, F.R.C.S.I.

The Committee propose that the material should be arranged under the following heads:

I. Exhibits bearing on discussions and papers in the various sections.
II. Specimens and illustrations relating to any research work.
III. Instruments relating to clinical diagnosis and pathological investigation.
IV. Individual specimens of special interest, or a series illustrating some special subject.

It is also proposed to make a special effort to gather together a series of exhibits relating to:

(*a*) Tuberculosis.
(*b*) Diseases of warm climates.
(*c*) Cancer of the uterus.
(*d*) *X*-rays and photography.

THOMAS HOUSTON,
W. J. WILSON,
Honorary Secretaries.

Communications should be addressed to one of the Honorary Secretaries at Queen's University, Belfast.

THE ROYAL COMMISSION ON THE POOR LAW AND THE RELIEF OF DISTRESS.

MEMORANDUMS.

By DR. DOWNES.

Of the eighteen members of the Poor Law Commission fourteen signed the Majority Report and four the Minority Report, while five of those who signed the Majority Report have thought it necessary to issue memorandums in which they express special views. One of the most important of these is the memorandum signed by Dr. Downes, Senior Medical Inspector for Poor Law purposes to the Local Government Board for England. He commences by saying:

I have signed the Majority Report because I desire to support the principle that public relief in every form should be administered and controlled by one local authority in each area. The control of assistance from public funds is a foremost function of government, but it is not one which the people of this country would willingly surrender to a régime of officialism, however this may commend itself to the ultimate aims which have inspired the Minority Report.

But I regret that I must dissent from the scheme of administration proposed in the Majority Report. I view with grave misgivings the wholesale and imminent disruption of existing agencies and the transference of the work of relief to a complicated, untried, and, as I venture to think, unworkable system of machinery with manifold and inherent dangers.

Dr. Downes admits that the present elective basis of our local government in some places has neither secured efficiency, nor prevented corruption, nor fairly represented all interests, nor enlisted the services of many well-qualified workers. Still he thinks these defects could be remedied without sweeping away all directly-elected representation, a course contrary to our national instinct, the necessity for which is not proved. He considers that many of the conditions of outdoor paupers are due not so much to faults of the administration of Poor Law relief, as to shortcomings of education, sanitation, and housing. He regrets that there has not been a fuller recognition of the work done by guardians in the reports; for instance, on the subject of classification of inmates, he points out that of the indoor poor in the country, exclusive of lunatics and casuals, 38 per cent. are provided for in specialized institutions apart from workhouses, and in London over 50 per cent., and there may be some danger of hardship if classification is carried too far, as, for instance, unnecessary breaking up of families. Of the children in receipt of relief, not 7 per cent. are housed in workhouses proper. He points to the satisfactory fact that the number of paid nurses for the sick indoor poor has risen from 200 in 1838 to over 6,000 in 1908, while the beds in the Poor Law infirmaries of London nearly equal those of all the general hospitals in the whole country. Moreover, in spite of the statements about the deterrent effect of the Poor Law, he shows that the public highly appreciate the Poor Law infirmaries, as is proved by the fact that the proportion of the total deaths in London that occur in Poor Law institutions has risen from 12 3 per cent. in 1890 to 20.5 per cent. in 1907.

Referring to the defects on which the sweeping changes advocated in the Majority Report are based, he says:

My experience convinces me that there is not one which could not be met, and I venture to say better met, by a revision, a strengthening, and an extension of existing powers on lines already established.

Referring to the proposed adoption of the county or county borough as the future area of local administration for Poor Law purposes, Dr. Downes is convinced that the amount of readjustment necessary would be so great as to make such a change extremely difficult, and even then no finality would be secured, for as urban districts grew into boroughs, and these into county boroughs, further adjustments would be constantly needed, which would become more and more difficult as the county institutional service became more complete. There are even cases where the area would be reduced, and grouping of county or county borough areas would be practically impossible. In place of this Dr. Downes's own proposal is as follows:

From all these objections a policy of grouping or amalgamating existing unions would be largely free. The adjustment of properties and liabilities would be comparatively simple. The plan could look forward to, and automatically provide for, the future; existing machinery would be available, and could be used for all it was worth. And in this connexion the question of existing officers should not be forgotten. The scheme before the Commissioners does not fully deal with this, and no estimate of possible cost of compensation for loss of office is given.

It is pointed out that in the rural districts pauperism is largely an affair of old age, which the Old Age Pensions Act will greatly relieve, leaving no necessity for any radical changes, while in London and urban centres the enormous increase in adult and able-bodied pauperism makes the position so serious that reform should certainly begin there.

There are further reasons for opposing any step which tends to municipalize the administration of public relief under the existing conditions of municipal government in this country, conditions which are devoid of essential safeguards, and are fundamentally different from those of Continental cities, a point which appears to be too often forgotten.

Dr. Downes maintains that a strong control of public relief is a vital necessity, and that it should be in the hands of one authority.

But I hold that that authority should be directly constituted for its special purpose; its functions are too great to warrant its attachment as an appendage to a borough council. . . . The great county or county borough councils are already overburdened with duties. . . . Any idea that the scheme would promote co-operation of departments—public health, education, works, relief—I believe to be illusory and dangerous. . . .

I should favour, then, for London a scheme under which a relief authority should be constituted for its set purpose, partly elected and partly nominated, with an administrative area which could, if and when thought fit, be extended to include the fringe of London. . . . I see no reason why a similar machinery should not in turn be applicable to great urban areas elsewhere, each area being built up of existing units of Poor Law administration, according to their community of social and industrial interests.

It has been calculated that in this way 154 urban unions could be dealt with, containing two-thirds of the population of the country, while the remaining 491 unions which are mostly rural could be left undisturbed, except for some adjustment in numbers of guardians and the adoption of representative nomination or by some grouping. Such an organized administration could then take over the lunatic asylums and fever hospitals, which are essentially instruments of public relief.

As regards medical relief, Dr. Downes thinks that the Majority scheme is too complicated and too dependent on agencies beyond the control of the Poor Law; that much depends on the action of the voluntary hospitals; that Poor Law relief needs settling first, and that the alignment of other agencies should follow. The following remarks are important:

The building-up of the provident dispensaries, their relation to the voluntary hospitals, the reciprocity of each with any system of public medical relief, and the ever-increasing public demands upon the services of the medical profession, involve problems which should, I submit, be considered by some body more representative of the interests concerned and more directly equipped to deal with detailed difficulties than the present Commission. The scheme set out in the report appears to me to offer what amounts to a large measure of free medical relief without adequate safeguard either to the medical profession generally or to the ratepayer. Provident dispensaries established by the enrolment of paupers and subsidized by the rates would, I fear, become provident in name only, and the offer or inducement of free institutional relief to any member of these dispensaries is one which in my judgement could not be met until the available accommodation for the sick has been largely augmented. The margin of spare accommodation at present lies in remote country workhouses, and not in the infirmaries of the urban centres of demand. This offer of free institutional relief implies also, but does not ensure, a settled scheme of reciprocity between the voluntary and the rate-supported hospitals. Unless this is done, the Poor Law, in order to fulfil the obligation incurred, would be compelled to establish a costly system of specialized hospitals parallel to and competing with the voluntary institutions.

The memorandum goes on to say that for that class which is not generally dependent on the rates but cannot afford to pay for costly surgery, though willing to pay according to its means, the difficulty will be solved partly by increased accommodation, partly by insurance, and partly by reciprocity between voluntary and rate-supported hospitals; at present the pauper is really better off than this class. Meanwhile the grouping of existing Poor Law units would give wider choice of institutions and facilitate classification of the sick; at the proper time it would be

easy to co-operate with voluntary agencies. Co-operation with the sanitary service could readily be developed, but it must be remembered that—

The separate functions of the two services are quite definite, and any amalgamation of them, such as is suggested in the Minority Report, would, in my judgement—and I have had experience of both—be detrimental and contrary to the public interest.

Dr. Downes thinks that disfranchisement should be reserved for certain cases—for example, persons able to pay but failing to repay for institutional relief. He further thinks that the cost of infirmary construction and administration and the standard of equipment should be inquired into by a Departmental Committee.

Dr. Downes considers want of employment the most pressing subject, and the delay in dealing with it which would result from the breaking up of existing machinery would be most injurious. It needs no great enlargement of present powers to deal with this, but the effectual severance of the idle and vicious from the industrious can only be enforced if relief is in the hands of one authority. Strong dissent is expressed from the proposal that local authorities should provide special work in times of depression, as the machinery of the authority ought to be so constituted as to suffice, with provision for the use of spare accommodation in other localities.

The memorandum concludes with an expression of regret that financial considerations have not been fully dealt with, as the proposals of either report must involve an immediate and unknown outlay of public money.

By Miss Octavia Hill.

Miss Octavia Hill, in a memorandum appended to the Majority Report, says that she signed the Majority Report because she agreed in the main with its proposals, but she differs in the following points:

A statutory committee of the County Council appears to me to be open to the following objections:

1. It tends to the municipalization of the Poor Law.
2. It is comparatively untried machinery.
3. It is, at best, composed mainly of those elected for other duties, and already over-weighted with work.

I should have recommended an *ad hoc* authority elected from an enlarged area, and with a strong nominated or co-opted element. . . .

The scheme for medical relief sketched in the report is not, in my opinion, workable; moreover, it opens the door too widely to free medical relief.

By Mr. C. S. Loch and Mrs. Bosanquet.

Mr. C. S. Loch and Mrs. Bosanquet also signed the Majority Report, but issue a joint memorandum dealing principally with the provisions for exceptional distress; while agreeing with the principle of there being only one relief authority, they "are strongly of opinion that the treatment of distress, exceptional or other, should be entirely dissociated from the municipalities and from municipal employment."

By Mr. T. Hancock Nunn.

Mr. T. Hancock Nunn issues a long memorandum as to the functions and constitution of the new Public Assistance Authority and its local committees. He agrees in the main with the Majority Report, and enters into details of the Hampstead system of co-operation by means of a Council of Social Welfare. The main object of the memorandum is to suggest a method of co-operation between the Public Assistance Authority and all the public, endowed, voluntary, and friendly bodies working in its area for the social betterment of the people.

Infant Mortality in Workhouses.

In view of the statements which have been made with regard to the mortality among infants in workhouses both in the lying-in wards and afterwards, Dr. A. E. Dodson, Medical Officer of the Wandsworth Union, has, in a report to the guardians, abstracted from his records particulars from January 1st, 1892, to December 31st, 1908, relating to the lying-in ward of the workhouse. He finds that during that period 2,414 births took place, of which 615 were legitimate and 1,799 illegitimate. The deaths during the first week were as follows:

Under 1 day old	...	29	Under 5 days old ... 3
,, 2 days old	...	12	,, 6 ,, ... 2
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,, ,,	...	2	

The total 60 was equivalent to a rate of 24.8 per 1,000. From the return on deaths of infants in Poor Law institutions presented to the House of Commons by the Local Government Board in April last, it appears that of 2,653 children born in metropolitan Poor Law institutions in 1907, 112 died within the first week of life—a death-rate of 42.2 per 1,000 births. Of the 60 deaths in Wandsworth, nearly all of illegitimate children, no fewer than 39, or 65 per cent., were due to premature birth; the percentage from this cause shown in the Local Government Board report is 50.89. Of the other deaths at Wandsworth, all were, in Dr. Dodson's opinion, due to prenatal and maternal conditions, the importance of which Mrs. Sidney Webb, in his opinion, improperly minimizes. After observing that the mothers of these illegitimate children came chiefly from the factory hand, hawker, and domestic servant classes, he makes the following observations about prenatal and maternal conditions:

What are "prenatal and maternal conditions"? It must first be conceded that for healthy offspring it is necessary that the mothers while carrying shall be healthy, well fed, and, most important of all, in my opinion, free from worry and anxiety; but what do we find in our workhouse cases?

1. That almost invariably, directly a girl finds out her condition, she doses or is dosed with noxious drugs, patent pills, etc., and an already generally feeble constitution is still further enfeebled.
2. Their position in life prevents the having of anything like appropriate food, etc., for a prospective mother.
3. As regards mental worry, the months of anxious waiting and dread, the prospect of being a social outcast with the burden of a "fatherless" child, must and does have a tremendous effect upon both mother and offspring.

To compare statistics of workhouse cases with those of the "*best maternity hospitals*" or *of the general population*, is manifestly unjust and unfair. We deal with an entirely different class, and with experience of all three classes I claim that we have nothing to be ashamed of in a rate of mortality of 24 per 1,000 in infants during the first week. Bred and born under the conditions I have enumerated, children must lack "backbone and stamina" and a power of resistence practically all through their lives.

Many of our lying-in cases are admitted in labour in a filthy condition, half-starved, from insanitary homes, and often after fruitless attempts at delivery have been made by doctors and midwives outside. Our "operative" cases are much above the average of those among the general population, and yet our results are at least as satisfactory as under better conditions outside.

Dr. Dodson then deals *seriatim* with certain statements made as to workhouse nurseries.

1. As to the statement that babies never get into the open air, he says that at the Wandsworth workhouse they are taken into the open air from a few days old; after a month they are, when the weather is fine, sent out in perambulators on to the common with their mothers in charge of a nurse for several hours daily; at other times they are kept by day in well-ventilated and light day-rooms or covered sheds, and by night care is taken that the dormitories are wholesome and well-ventilated.

2. As to the statement that the babies in workhouse nurseries are still handled in the main by pauper women, many feeble-minded and imbecile, Dr. Dodson says that in the Wandsworth workhouse there are no imbeciles, and no feeble-minded inmate is allowed to handle or look after the children; the children are handled by their mothers, who may be paupers, but are not thereby rendered unfit to handle their own children.

3. As to the statement that in some workhouse nurseries there is not even a trained nurse in charge, Dr. Dodson says that at the Wandsworth workhouse there is a charge nurse with two capable assistants by day, and a properly qualified nurse at night, to look after both mothers and children.

4. With regard to the absence of quarantine of new-comers, Dr. Dodson admits the difficulty, pointing out that it is well known that to provide proper quarantine accommodation each unit should be kept quite separate for at least two or three weeks. He continues:

We admit here, to the workhouse, very often forty, fifty, or even more young children a week, and to talk of providing "proper" quarantine accommodation for such a number is obviously impossible and verging on the ridiculous. We place them under clean and sanitary conditions as far as possible in the receiving wards before they are sent to the nurseries, and, in spite of Mrs. Sidney Webb's concluding statement, "No wonder that measles and whooping-cough are troublesome," I must say that my experience does not coincide with her opinion.

INFANTILE MORTALITY IN WORKHOUSES.

SIR,—Your article of June 26th on the Minority Report of the Poor Law Commission brings five definite charges against the Commissioners—namely: (1) That our statistics were misleading, because they included readmissions, and thus the babies who came in sick; (2) that the comparison of the ten best workhouses with the ten worst was based on an unfair selection of populations; (3) that the comparison with the domiciliary work of the Plaistow Maternity Charity was unfair because this latter sent its difficult cases into institutions; (4) that the statistical assumptions on which the figures were based were fallacious: and, in particular, (5) that they ignored the fact that the workhouse nurseries retained the unhealthy babies and discharged the sound ones.

Let me take these one by one. Your contributor more than once assumes, and founds on this assumption some two hundred words of effective argument, (1) that our statistics include infants readmitted to the workhouse after discharge, and therefore presumably ill or deteriorated by outside conditions. *This is not the case.* The facts relate exclusively to the infant's first sojourn in the workhouse. The tabulated results include no deaths after readmission. Then (2) your contributor assumes (and founds on the assumption an accusation of want of "common fairness") that the ten best workhouses cited were selected from districts having contributory populations differing in kind from those served by the ten worst, which have (taken together) eleven times as high a rate of infantile mortality. But your contributor had no ground for this assumption. You would be convinced if you knew the names of the unions, which I should be glad to give you privately, but which I have refrained from publishing in the bad cases. You will find (*as the Local Government Board is now aware*) that the startling differences between the workhouses — *there are some having literally twenty times as great an infantile mortality-rate as others* —are not explicable on any such hypotheses as your contributor (naturally following on this point the memorandum so hastily prepared by the Poor Law Division of the Board) has put forward. Then your article assumes (3) that the low rate in the domiciliary treatment of the Plaistow Maternity Charity is vitiated by the automatic exclusion of the difficult cases, ignoring the fact that the rate given was expressly stated to *include* all the deaths in all the difficult cases which were sent to an institution.

I pass now to your contributor's complaint (4), which does not impugn the figures for the first fortnight (in themselves sufficient for my case), about the method of tabulation. Now, this is a matter of statistical science. We were quite aware that any statistical statement that we made, whatever it was, would be denounced by those who would do us the honour of criticism, *in the same terms in which similar statistical revelations have always been denounced.* Most of our critics have very naturally presumed on the fact that we were not ourselves expert statisticians. But we took the obvious precaution of consulting, not one alone, but several eminent statistical and actuarial experts; the method adopted was adopted on the advice thus obtained; and the tabulation was done for us by statistical clerks under expert supervision. We could therefore afford to pass over the animadversions of our non-statistical critics. But, as the point is one of interest to the medical profession, let me say that the plan of assuming the mortality of those who go out to be the same as that of those who remain in is to-day a well-known statistical device in dealing with institutional results, of perfect scientific validity within a certain range, and (provided that, as in our report, its employment is openly stated) not open to any reproach of unfairness. For instance, in the comparison with each other of several analogous institutions dealing with identical diseases, the device (which affects them all in the same way) is, given sufficient range of experience in time and space to eliminate chance factors, not only without objection, but actually the only practicable method of bringing the data into comparison. It is, I may point out, the failure to use this device which led the Poor Law Division of the Local Government into the extraordinary statistical fallacy (in which your contributor has unwittingly followed them) of supposing that adverse prenatal conditions could possibly have any bearing on the assertions that we made as to the excessive mortality of some workhouses as compared with others adjacent to them.

But I think the use of the device is sometimes misunderstood by non-statistical readers. There is no assumption made as to the fate of the particular infants who leave the workhouse—whether these actually die at a high rate or a low one, after they have been discharged, does not affect the question. It is obvious that if the statistician permitted this fact to affect his conclusions, he would be debiting or crediting the workhouse with mortality caused by outside conditions. The assumption comes to no more than saying that the comparative mortality-rates over a given period of time, of analogous institutions dealing with the same kinds of cases, would not be affected *otherwise than by the influences of the institutions themselves*, by the inmates in the several institutions remaining, some a little longer and some a little shorter time, provided that the total periods are accurately compared. This brings me to your contributor's further complaint (No. 5) that we ignored the fact that it was the healthy babies who were discharged whilst those who had weak constitutions remained in. *You will notice that this consideration, true of all workhouses if true at all, does not explain why one workhouse has an infantile mortality twenty times as great as another workhouse.* But though the criticism would be warranted if we were dealing with a children's hospital, does any workhouse medical officer believe that the actual mortality among the babies who are discharged is less than that among those who remain under his care? What is said by those in touch with life among the very poor is that the subsequent mortality among the infants taken out, including as they do a large majority of the illegitimates, is appallingly great. As a matter of fact, the decision of the mother to discharge herself and the infant appears to me, so far as my experience extends, to have no relation whatever, in the vast majority of cases, to the strength of the child's constitution, or the momentary state of its health.

Let me remind your readers again that four months' adverse criticism has left unimpugned all the statements of fact that we made. Whatever may be thought of the inferences drawn, not a sentence that we used has been shown to be inaccurately expressed. No one has denied that the infants do die as we stated them to die. As you point out, the partial statistics collected by the Local Government Board for about thirty unions in the metropolitan area corroborate our statements, as far as they go. What the controversy has turned upon is whether or not the admittedly high death-rate is *to any extent whatever* preventable (and therefore is excessive); and if so, whether it can be prevented by any other treatment of the infants, or by any better prenatal protection and help of the mothers.

I am well aware of the disadvantages of all comparative statistics in medical matters; and in the last paragraph of your contributor's article this is the argument used against, not only ours, but *any* mortality statistics of institutions. I doubt whether it is wise for the medical profession to take this line. It is unfair to the workhouses and workhouse infirmaries which have successfully overcome all the difficulties on which your contributor lays such stress; and have actually demonstrated that the infantile mortality can be brought down, if not to the Rotunda Hospital rate, at least to a rate one-tenth, *or even one-twentieth*, of that prevailing in other workhouses. To these institutions all honour should be paid. But it is unfair, also, to the staffs working under greater disadvantages. When I think of the overworked and underpaid workhouse doctor struggling against an ignorant and parsimonious board of guardians, I could wish that the BRITISH MEDICAL JOURNAL would bring to his aid the potent lever of comparative statistics. It is all very well to assert that "the only test of efficiency is careful inspection by competent experts." The harassed workhouse doctor, conscious that things are not what they should be, has not the assistance of expert inspection. He knows, though your contributor seems momentarily to have forgotten it, that the 600 workhouse nurseries and sick wards outside the metropolis *are not subjected to any annual or regular inspection by competent experts.* The only regular inspection, save in

exceptional cases, is by the general inspectors of the Local Government Board—excellent gentlemen, but, as laymen, not competent to form any opinion on nurseries or sick wards. There are only two inspectors for medical purposes, and these, charged as they are with many other duties, can inspect only a small proportion of the seven or eight hundred Poor Law institutions. As you say, "numerous witnesses whose ability to judge is unquestioned, have testified that *the management in some workhouses is lamentably bad both in lying-in wards and nurseries*." We asserted no more. No more effective weapon can be put into the hand of the zealous workhouse doctor, with which to overcome the resistance of his board, than a statement of the facts in accurate statistical form, with comparisons with other unions known to his board. (If any workhouse medical officer would like to have the calculation made for his own workhouse nursery, I would gladly have the figures confidentially worked out for him, if he would send me the births and deaths for 1908.)

But I am delighted to learn from your article "that Mr. Burns has assured the House of Commons that special investigations were being made by the Medical Department of the Local Government Board, and that a report would be issued." This is good news. I always felt sure that Mr. Burns's well-known enthusiasm for reducing infantile mortality would lead him, at the proper moment, to start an official investigation into the mortality results of lying-in institutions, among which those of the Poor Law constitute so large a proportion. Such a comparative study of workhouse and hospital lying-in wards, with the results for the general populations of the same localities, would do justice to the difficulties under which the Poor Law Medical Service suffers, and lead probably to many valuable improvements for which its members have often asked in vain. In the competent hands of the Chief Medical Officer of the Local Government Board we may well leave the matter, in full confidence that his investigations will not be confined to the bad workhouses or to the good; that his statistics will be beyond cavil by anybody; and that we shall see what light the facts thus ascertained throw on the hypothesis of some hitherto unrecognized endemic influence whenever there is any herding of infants together. We asked only for proper investigation into the workhouse nursery mortality. I am glad to learn from your article that it has now been promised.—I am, etc.,

BEATRICE WEBB.
41, Grosvenor Road, Westminster, S.W. (Mrs. Sidney Webb.)

LITERARY NOTES.

MR. H. K. LEWIS has purchased the remainder of the stock of the New Sydenham Society's publications, comprising the collection of volumes on medicine and surgery, the Pathological Atlas, the Lexicon of Medical Terms, and the Atlas of Clinical Medicine, Surgery, and Pathology, issued by the society during the years 1859–1907. Many of the works were of a pioneer character when issued by the society, and have since acquired a classic and historic importance. The number of copies of each book has been of necessity limited on account of the heavy expense of warehousing a larger stock, and of many of the volumes only a small number remained over. A selection of such volumes as may still remain unsold will be on view at Mr. Lewis's Stand, No. 38 (to left of main entrance), at the Exhibition in connexion with the British Medical Association's Meeting at Belfast in July this year.

Messrs. Baillière, Tindall, and Cox announce that on and after July 1st they will take over the publications of all the books by Sir William Whitla, including *Materia Medica*, *Practice of Medicine*, and his well-known *Dictionary of Treatment*, a new edition of which will be issued in the autumn. They will also in future publish Green's *Pathology and Morbid Anatomy*, a tenth edition of which is now in circulation. These changes are the result of the retirement from business, after more than forty years' work, of Mr. William Renshaw, the head of the old-established firm of Henry Renshaw, which will now cease to exist. Messrs. Baillière, Tindall, and Cox have also the following new works and new editions in preparation. A translation of Dieulafoy's *Textbook of Medicine*, by Dr. V. E. Collins; a third edition of a *Manual of Massage*, by M. A. Ellison; a second edition of *Practical Microscopy*, by F. Shillington Scales; a second edition of *Aids to Analysis of Food and Drugs*, by C. G. Moor and W. Partridge; *Sanatorium Treatment of Tuberculosis*, by Dr. Rufenacht Walters; *Surgical Anaesthesia*, by Bellamy Gardner; a third edition of *Aids to Mathematics of Hygiene*, by Dr. R. Bruce Ferguson; a second edition of *Chemical Notes and Equations*, by G. H. Gemmell; *Gynaecological Therapeutics*, by Dr. S. J. Aarons; *Incidence of Sex and Age on Disease*, by Dr. J. Grant Andrew; a second edition of *Menstruation and its Disorders*, by Dr. Arthur E. Giles; and a reprint of the second edition of *Minor Maladies*, by Dr. Leonard Williams.

The Oxford University Press announces the publication of a work by Dr. Raymond Crawfurd, Physician to King's College Hospital, which deals with a point of historical as well as medical interest. It is entitled *The Last Days of Charles II*, and the primary object of the author has been to establish the true cause of the monarch's death, which has been ascribed by historians to apoplexy.

The President of the Royal College of Surgeons, Sir Henry Morris, has issued a reprint, with slight additions, from the BRITISH MEDICAL JOURNAL of February 20th, 1909, of the Hunterian Oration on John Hunter as a Philosopher, delivered by him, in the presence of Their Royal Highnesses the Prince and Princess of Wales, on February 15th. The additions, which are in the form of appendices, contain much matter of great interest. Thus, speaking of Hunter's brief experience in cabinet making, Sir Henry Morris says that, had it not been for his over mastering love of natural science, his manual dexterity might have been the means of his acquiring fame as a designer and worker in the mechanical and decorative arts, equal to, or greater than, that of the Buhl family, or of Caffieri, Gouthière, Riesener, Sheraton, or Chippendale. In another appendix it is stated that there is not a scintilla of evidence to support the assertion that has sometimes been made that Hunter was fond of low company. Like his brother William, he freely conversed with country folk, thus learning their experience of the common things of life; and when he first came to London his position of demonstrator of anatomy under his brother brought him into contact with "resurrection" men and the keepers of menageries. But this was from necessity, not from choice. Hunter, like most men of science, despised the *vox populi*; he once remarked that he would sooner see his collection destroyed than show it to a "democrate." Sir Henry Morris points out that Hunter's faulty spelling was by no means a proof of his want of education. In his day misspelling was not considered a sign of great ignorance. In proof of this he quotes Macaulay's reference to the incorrect spelling of Lord Bute, who was for some months Prime Minister of England; and the description by Charlotte (in Richardson's *Sir Charles Grandison*) of one of her lovers as "spelling pretty well for a Lord." To these proofs of the toleration with which misspelling was regarded in Hunter's day we add one far stronger. Dr. Samuel Johnson, the "great lexicographer," who reduced the chaos of English spelling to order, did not take the trouble to abide by his own rules. In his letters, published by Birkbeck Hill, we find "persuance," "I cannot butt," "council" (where counsel is meant), "happyest," "Fryday," "solicite,' "defense," "pamflets," harrassed," "do's" and "dos" (for does), "inventter," "barels," "cloaths" (clothes), "acknowlegement," "distresful," "personale," "Plimouth,' "imbecillity," "enervaiting," and "devide." He frequently omitted the possessive apostrophe, writing "bankers book," "doctors prescription." He always spelt the name of his biographer "Boswel," and the name of his friend John Nichols appears variously as "Nichols," "Nicols," "Nichol," and "Nicol." If John Hunter erred in spelling he did so in the very best company.

Dr. G. H. R. Dabbs has revived his periodical, entitled *My Journal*, which, he says, in 1907–8 had a life of seven numbers. For a long time he has written his thoughts in *Fry's Magazine* and elsewhere, but he prefers in future to be his own mouthpiece. The June number is ushered in by a Reveille Song, which Dr. Dabbs was asked to write by Mrs. Watt Smyth, of the Women's Aërial League. This stirring song was read with great effect by Miss Ruskin at a dinner, over which Mrs. Smyth presided, at the Lyceum Club on June 21st in furtherance of the objects of the league.

That these objects are of a practical character is shown by the fact that among the guests was Admiral Sir Percy Scott. The poet hears our fathers, who "conquer'd in Life's battle hard and long," calling to us to awake and be the men they were. The following is the concluding verse:

O, the dead are list'ning for the answer of the brave,
They but slumber lightly in the cold transmuting grave—
Vast their empire—shadow-bound—yet limitless withal,
Where seem to fade the last far notes of England's bugle-call—
They were great though mute they seem,
Warriors of Death's martial dream,
Ye can hear them, so ye list,
Where roars the sea, where broods the mist—
Calling—calling—calling, "O, awake!
Be men as we were men for England's sake."

Medical News.

THE estate of the late Mr. Simeon Snell has been proved at the total value of £30,451 0s. 6d., with £28,883 8s. 9d. net personalty.

AT the annual general meeting of the London Nottinghamshire Society, held on June 24th, Mr. Sydney Stephenson was elected President of the society for 1909-10.

THE London Hospital Medical College Endowment Fund has received a gift of £2,000 through the kindness of Dr. Luther Martin, an old student of the college.

THE King of Spain has given Dr. W. A. Mackay, of Huelva, Andalusia, Spain, a graduate of Edinburgh, the White Cross Eagle of Carlos III for distinguished surgical service rendered to the Guardia Civil.

A NEW law as to marriage and the granting of licenses to marry in the State of Washington, which came into effect on June 10th, provides that applicants must first undergo a medical examination.

THE annual meeting and dinner of the Edinburgh Royal Infirmary Residents' Club, which had been fixed for June 25th, has, on account of the death of Professor Cunningham, been postponed *sine die*.

MR. EDWARD SMYTH CRISPIN, M.R.C.S., Assistant Director of the Soudan Medical Department, Khartoum, has received the Royal permission to accept the Fourth Class of the Imperial Ottoman Order of the Osmanieh conferred upon him by the Khedive of Egypt.

THE late Dr. Bell Taylor, of Nottingham, left estate of the gross value of £160,000, the net personalty being over £95,000. Among his bequests are the following: £5,000 each to the British Union for the Abolition of Vivisection, the London Antivivisection Society, the British Committee of the International Federation for the Abolition of the State Regulation of Vice, the National Anti-vaccination League, and the Royal Society for the Prevention of Cruelty to Animals.

DR. JOHN CONSTABLE, of Leuchars, Fife, was on his retiral from practice the recipient, on June 26th, of a testimonial from patients and old friends, consisting of a silver salver, with suitable inscription, and a purse of sovereigns. Mr. Hodge, chairman of the local school board, as the spokesman of a goodly company of subscribers, made the presentation, and referred to the long period of forty-six years during which Dr. Constable had worked in the north of Fife. Dr. Constable feelingly replied in a speech in which humour and pathos were skilfully blended. Dr. Douglas, Cupar, proposed a vote of thanks to Mr. Hodge, and the proceedings terminated.

THE vacation course of the North-East London Post-Graduate College is to be held this year, from September 6th to September 18th, at the Prince of Wales's General Hospital, Tottenham, N. There will be continuous arrangements for study during the fortnight from 10 a.m. to 6 p.m. each day. They comprise demonstrations on clinical methods, demonstrations of selected clinical cases, pathological demonstrations, clinics, and clinical lectures and discussions. The fee for the course is two guineas. A syllabus, with further information, may be obtained from the Dean of the school at the hospital, or at 142, Harley Street, W.

THE sixty-eighth annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be opened on the morning of Thursday, July 22nd, at the West Riding Asylum, Wakefield, and at 2 p.m. the President-elect, Professor W. Bevan-Lewis, will deliver an address; subsequently Dr. A. Helen Boyle will give an account of an attempt at the early treatment of mental and nervous cases (with special reference to the poor). The annual dinner will take place on the same evening at the Queen's Hotel, Leeds. The meeting will be continued at the Queen's Hotel on Friday, when a series of papers will be read at morning and afternoon meetings. Further particulars can be obtained from the Honorary General Secretary, 11, Chandos Street, Cavendish Square, London, W.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society, was held at 429, Strand, London, W.C., on June 18th, Dr. de Havilland Hall in the chair. The accounts presented showed that the business of the society was growing at a satisfactory rate. Last year was quite exceptional in the number of new entrants, and the figures of the current year were so far well above the average. The financial reserves of the society were also growing. At the beginning of the year the funds amounted to £224,000, and a substantial sum had been added to this during the first half of 1909. The sickness claims had been numerous, but not more than the records of the society rendered probable. For the most part these claims have been of moderate duration, and the total amount of sick pay disbursed compared favourably with the sum paid during the corresponding period of last year. The sickness lists show a steady growth in the number of permanently incapacitated members, of whom there are now over forty; about £4,000 a year is being paid to them. Prospectuses and all further information on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

THE half-yearly council meeting of the Cottage Benefit Nursing Association, followed by a general meeting, was held at Denison Hall, London, S.W., on June 10th, the Earl of Ancaster in the chair. Mr. C. S. Loch, of the Charity Organization Society, in a short address on the federation of kindred institutions, said that the inquiry of the Royal Commission on the Poor Law and the Relief of Distress had made it evident that it was most desirable that the arrangements for nursing throughout the country should be greatly extended and strengthened. Year by year advance had been made by the Cottage Benefit Nursing Association, and the chief question now was the means of confirming that advance on really strong and trustworthy lines. There seemed to have been a kind of grading of nurses, according to the degree and kind of training which they had undergone, one division of which was ordinary nursing *plus* midwifery, a matter which was of very great importance at the present time. The success of the movement in the future rested largely upon the intimacy of the association of those concerned in its promotion. Without proper co-ordination there would be wasted effort, and a very serious item in divided efforts was cost of administration. He advocated the establishment of county associations of nurses everywhere. The present great demand for nurses could be met by proper organization; people were quite ready to pay for such help if they were asked in the right way. The Chairman said it was a great pity to multiply associations with the same object. He had always maintained that there was money enough in London to meet all the distress which existed in the metropolis, but so much at present was frittered away in management expenses. Moreover, help was not always given where it was most needed. Dr. J. C. Thresh, speaking on the training in towns of nurses for the country, from actual experience of the very poor and of different classes of nurses, said that there was a great demand for midwives, but not for nurses. There were plenty of institutions for training nurses, but not a sufficiency of engagements for them afterwards. In all the large towns a large amount of sickness occurred which could easily be alleviated if the efforts to do so were properly organized, and if a well-trained nurse, or, often better still, a well-trained mother, could be sent in. For such people as he was speaking of there was wanted, not the woman who had been trained in institutions where everything of the most modern description was ready to hand, but one who had spent a great deal of her time in cottage homes, where she had to do most things for herself. It was not practicable to train more than one probationer for every 10,000 people; in Leyton, with a population of 120,000, twelve nurses were trained. He gave his experiences in the North and in Essex, and the means by which difficulties were overcome. The movement had not been started a twelvemonth in Essex before the medical profession sent a deputation saying that the organization was doing work which should be left to it. The supporters of the organization agreed to the suggestion that some local medical men should be on the working committee, and there had been no friction since. He attributed much of the success to the fact that they had secured the co operation of the medical men.

British Medical Journal.

SATURDAY, JULY 3rd, 1909.

THE POOR LAW COMMISSION AND THE MEDICAL PROFESSION.

In his Presidential address to the Metropolitan Counties Branch, published in the Supplement last week, Dr. Ford Anderson rightly laid stress on the importance to the medical profession of the reports of the Poor Law Commission. A full summary of the Majority and Minority reports was given in the Journal for February 20th and 27th, while Dr. McVail's report was summarized on April 3rd. In the present issue memorandums by several signatories to the Majority Report are given. Special importance attaches to that of Dr. Downes, as there are some grounds for regarding it as expressing the views of the Local Government Board; at any rate, it agrees in many particulars with public declarations made by Mr. Burns.

Very briefly stated, the Majority Report recommends that guardians should be replaced by a statutory committee of county and county borough councils, to be called the Public Assistance Authority, which is to appoint at least two committees—one, the Public Assistance Committee, for dealing practically with general relief, and the other, the Medical Assistance Committee, on which the local branch of the British Medical Association would have representatives, for medical relief; and, further, that a system of provident dispensaries should be set up, offering inducements to all persons below a certain wage-limit to become members, the British Medical Association being invited to suggest a wage-limit and other details.

The Minority Report recommends that the present work of guardians should be distributed, the able-bodied being dealt with by a central organization, while the non-able-bodied should be distributed among four existing committees of county and county borough councils, the Health Committee dealing with medical relief, the Education Committee with school children, the Pensions Committee with the aged, and the Asylums Committee with the feeble-minded; also Registrars of Public Assistance are to be appointed, with most important duties in co-ordinating the committees. Preventive measures are to take up most of the time of the medical service, and, though a free medical service for all is disavowed, it is generally felt that the tendency of the recommendations is in that direction.

Dr. McVail's report is, perhaps, the most radical, as it would replace not only the guardians, but the sanitary authorities—at any rate, in rural districts—by a new ideal health authority, which would deal with general sanitation, indoor and outdoor medical relief, and possibly even with general relief. A system of provident dispensaries is advocated, special stress being laid on periodical examination of all members of the dispensaries by the medical officers.

Dr. Downes's scheme is on quite a different footing, as it would retain the guardians, only enlarging the areas where necessary by grouping or amalgamation. He thinks it a fault of the other schemes that they do away with election *ad hoc*, and he would retain this, though with a large nominated or co-opted element added to each board. He objects to municipalization of public relief, and thinks that medical relief and sanitary work ought not to be administered by the same body. He also objects to the provident dispensary schemes as immature.

It will be seen at once, from even this incomplete sketch, that the interests of every section of the medical profession are vitally affected by all these schemes. Without expressing any preference for any one of the schemes as a whole, the following premisses may be accepted: (1) That the present medical service for the poor is in urgent need of reform; (2) That co-ordination of all public and voluntary medical agencies is necessary to prevent the present overlapping and consequent waste of money and energy; (3) that charitable medical institutions are greatly abused by people who are not fit objects for charity, and that every inducement ought to be held forth for the poorer classes to make self-provision against sickness; (4) that preventive as well as curative measures ought to form part of any public medical service.

In all these matters the interests of medical men are concerned, and it is therefore of prime importance that whatever authority is chosen to administer medical relief, it should include a fair representation of the medical profession. This is absolutely necessary, not only to safeguard the interests of the profession, but on the higher ground that the authority ought to have always at its disposal skilled and expert knowledge apart from its paid officials, and the suggestion of the Majority Report that representatives of the local Branch of the British Medical Association should have a seat on the Medical Assistance Committees ought to be a *sine qua non*.

Again, the interests of district medical officers will need most careful watching. If their services are dispensed with altogether proper compensation would of course have to be paid, which would be enormously costly to the country. Except, however, in the unlikely event of a free medical service for all, the district officers will probably be retained under any new authority, but they should be placed in a better position than at present as regards salary and provision of medicines, and the whole system of "orders" for medical attendance will need revision.

Further, if the destitution authorities are to send patients to voluntary hospitals, part of the payment made by the authority to the hospitals ought to go to the medical staffs. No medical man ought to be expected to do work systematically for the community without remuneration from the community. This will raise questions as to appointments to the medical staffs of all hospitals which accept such patients. It will also raise the question of the share the authority should have in the management of the hospitals. Payments by a public authority would probably lessen the amount of charitable subscriptions, and raise in an acute form the whole question of municipalization of hospitals.

Again, in the rural districts medical officers of health may find themselves in a difficulty if the smaller rural health committees are merged under the county councils, as the Minority Report suggests, or if new health authorities with larger areas are formed. Questions, too, will arise as to the relative positions of clinicians and sanitarians in a public medical service.

Whichever scheme be adopted, perhaps the position of general practitioners will be more affected than that of any other section of the profession. Any tendency to a free medical service for all is a tendency to the extinction of the general practitioner. As the Majority Report points out, gratuitous service for all would not only "inevitably tend to kill all existing "voluntary organizations for providing medical "assistance," but "the practice of the majority of "private medical practitioners would be gone; with "the exception of a very limited number of those who "might attend the wealthiest classes, medical practi- "tioners would either be absorbed in the public "service or would be obliged to change their profes- "sion." This may be a remote event, but it must be remembered that there is already a strong party in the country working for a free medical service for all comers. For the friendly societies to give up their medical benefit sections in favour of provident dispensaries might be no bad thing. It would certainly be better for the public, as the service would be under better supervision, and it would probably be better for the profession in the long run; but the numerous medical men who hold large club appointments will need to be considered, as it will be but scant satisfaction to them to find their club patients divided up among all the practitioners in the district.

Strict watch, too, would have to be kept on the management of the provident dispensaries, which ought to be largely in the hands of medical men. The Contract Practice Committee of the Association has already drawn up a scheme for provident dispensaries, and though, of course, it may need supplementing to adapt it to a State service, it ought to be insisted on as the foundation of any system. The question of wage limit is perhaps as important as any. If it be fixed too high—for instance, if any one earning £2 a week might join a provident dispensary—those doctors who did not care to be on the staff of the dispensary would either lose a great number of their private patients or would be practically compelled to join the staffs, and to attend as club patients persons who previously paid them ordinary fees.

Again, the suggestion that prevention of disease should form the chief part of the service would alter the whole character of the medical work, whether it were done through provident dispensaries or not. It is suggested that doctors in the service should not wait till people are actually sick but should periodically visit and examine every person on their list to detect the first symptoms of disease and make the earliest possible diagnosis. This would mean at first, and for a generation or two at any rate, an enormous increase of work for district medical officers and dispensary doctors. At present clubs and other appointments are taken on a rough calculation of the average amount of sickness, and if they are ever profitable, it is only because a fair proportion of the members never trouble the doctor at all. But if every member is to be visited and examined, to make it worth while for any doctor to undertake the work the fee per member would have to be so high as to be almost prohibitive to the poor classes and very costly to any authority that has to pay for the destitute.

Provident dispensaries properly managed will undoubtedly solve all these difficulties, but the dangers need to be fully recognized beforehand, so that a satisfactory scheme may be adopted. Dr. Downes is perfectly correct when he says that "the building up of provident dispensaries . . . and "the ever-increasing public demands on the services "of the medical profession involve problems which "should be considered by some body more repre- "sentative of the interests concerned and more "directly equipped to deal with detailed difficulties "than the present Commission."

There is no body in the country so well equipped as the British Medical Association, but unless the profession shows itself not only alive to its interests, but solidly united, the reform of the Poor Laws may bring disaster to the profession. It is alarming to find that, though the Commission report has now been before the country for some months, many medical men know practically nothing about it. They live in a sort of fool's paradise, under the delusion that nothing will come of it. Meanwhile, the Minority scheme is being advertised and pushed in every way, boards of guardians are temporizing to prevent more radical reforms, and schemes for insurance are being promulgated that consult the interests of the great friendly societies, but ignore the medical profession. The Poor Law Reform Committee appointed by the Council of the British Medical Association to deal with the matter is, perhaps, the most important ever so formed, and it is the bounden duty of every Division of the Association to be ready with suggestions when called on. It is inevitable that what appear to be the selfish interests of the profession will loom largely in our debates, but it is equally true that the success of any scheme for a public medical service depends on the proper public recognition of the just rights of the profession, which will not be properly realized if they are not forcibly declared.

ROENTGEN RAYS IN STOMACH DIAGNOSIS.

THE study of the normal movements of the stomach and intestines by means of bismuth meals has proved so useful that it might be expected the application of the same methods to the examination of gastro-intestinal pathological conditions would also be of service. In any case, it is right that it should have a serious and prolonged trial, for no one can say that the means at the disposal of the physician or surgeon are adequate to solve all the problems presented by the diseases of these organs. It is only after it has been used for the examination of a large number of cases and the results checked by laparotomy or autopsy that we shall be able to estimate its value, so that the report which has been published by Drs. V. Schmieden and F. Hartel[1] on a hundred cases of stomach disease examined by the x rays is a valuable contribution towards this desired end. The cases studied consisted chiefly of simple or malignant pyloric obstruction; but there were also examples of cancer in other parts of the stomach, total contraction of the stomach from cancer, hour-glass stomach, and one or two cases of ulcer, but of the last disease the authors say they "have little experience, as few "come to the surgeon"—an interesting observation indicating that in Germany the profession is more conservative in this respect than in England or America.

The authors do not make extravagant claims for the method, which they admit has its difficulties; it is not easy for a beginner to read the signs correctly; the information given is not complete, and must be taken merely as an aid to physical examination, but the method possesses the great advantage of

[1] *Berl. klin. Woch.*, Nos. 15, 16, and 17, 1909.

depending directly upon simple sensory perception. It is, therefore, of special value for teaching purposes. The quantity of bismuth usually employed was 40 grams (1⅓ oz.), but no toxic effects were observed. The authors consider that observations are best made with the fluorescent screen. An almost instantaneous skiagram of the stomach may be misleading, as during peristalsis it assumes various shapes, so that it may look as if there were hour-glass contraction or contraction of the pylorus, whereas if the observer watches the shadow on the screen he may see the abnormal shape disappear as quickly as it came. The stomach, so far as it is filled with bismuth, gives a deep shadow, and a defect in the normal outline may be due to the presence of a tumour; thus, in cancer of the wall of the pyloric portion the shadow of this part of the stomach may be absent; further, when the movements of the stomach are watched on the screen, it is possible to recognize abnormal peristalsis due to pyloric stenosis, or to observe feeble movements if the walls are weakened, or spastic contraction from irritation giving rise to functional hour-glass stomach. Again, on deep breathing, the normal descent of the stomach is seen, but if there are adhesions to neighbouring organs this does not occur. By kneading the stomach its contents can be displaced and an apparent hour-glass contraction made to disappear. Further, it is possible to determine whether a palpable tumour is connected with the stomach or not. In thin people a depression caused by pressure with the finger upon a normal stomach is easily perceived, and the difference noted when its wall offers undue resistance. By turning the patient round it is sometimes possible to make out whether the tumour is on the anterior or posterior wall of the stomach. Time observations or plates taken at varying intervals after a meal afford useful information. In three hours the stomach should be empty; if it is not there is motor insufficiency, generally due to pyloric stenosis. After the bismuth meal has left the stomach traces of it may remain in diverticula or adhering to ulcers or cancerous growths. The authors believe that distension or palpation with a sound in the stomach is a less satisfactory means of recognizing dilatation or ptosis. A shadow which is abnormally wide and accompanied by increased peristalsis indicates simple pyloric obstruction. In cancerous stenosis there is less dilatation and less displacement of the pylorus to the right than in simple obstruction. An hour-glass stomach is very well seen, but an ulcer may cause a tetanic spasm simulating it.

Cancer of the pylorus, if extensive, produces a defect in the shadow; in other parts of the stomach it may not be readily recognized. Cancer causing general contraction of the stomach is well shown by the *x* rays; the stomach is small and high, the normal peristalsis and pyloric movements are absent, and the food passes straight through it into the duodenum giving a continuous shadow. The authors do not think the method affords help in the early diagnosis of cancer, but they quote the paradoxical remark of Boas, that cases of cancer operated on late do better than those operated on early, which he explained by saying that in the later cases the patient has given proof of a certain power of resistance to the disease.[2]

In cases that have come to the *post-mortem* room, the authors have had plaster casts of the stomach made to compare with the *x*-ray plates. The illustrations published show that although the plaster has distended the stomach more fully, there is a very close correspondence between the two outlines. Reports of a number of cases, illustrated by diagrams showing the shadows seen in each case, are given. It appears that the screen may show a tumour where one cannot be felt; as, for example, in one case in which a movable cancerous tumour was recognized and resected. In most of the cases, however, a palpable tumour was present. In one instance the screen indicated the tumour to be extraventricular, and this was confirmed by an exploratory laparotomy. In some instances the shadows were misleading, as in two cases in both of which the outline suggested pyloric cancer, whereas the tumour was in the great and in the lesser curvature respectively. In another case cancer of the lesser curvature was correctly diagnosed on account of a sharp indentation of the shadow; but in yet another the same outline proved to be due to a kink, no tumour being present. In a case of perforating ulcer, the shadow gave no information beyond slight ptosis and dilatation.

Thus it will be seen that while the method has its limitations there is sufficient evidence of its utility. A good cyanide of platinum screen is evidently the most important portion of an *x*-ray installation for stomach work.

[2] *Deut. med. Woch.*, 1908, No. 1.

"HOSPITALISM" AND LISTERISM.

THE opening of a new surgical block of the Glasgow Infirmary a few days ago recalls the fact that it was within the walls of that institution that Lord Lister laid the foundations of modern surgery. Of the conditions under which his work was done an account is given in the second volume of his *Collected Papers*, recently issued from the Clarendon Press. Writing in 1870 he describes the "New Surgical Hospital" erected nine years before. This was on the whole constructed on hygienic principles; nevertheless, to the great disappointment of all concerned, it proved extremely unhealthy. Pyaemia, erysipelas, and hospital gangrene soon showed themselves, affecting, on the average, most severely those parts of the building nearest to the ground, including his own male accident ward, which was one of those on the ground floor. For several years, he says, he had the opportunity of making an observation of considerable, though melancholy, interest—namely, that in his accident ward, when all, or nearly all, the beds contained patients with open sores, the diseases which resulted from hospital atmosphere were sure to be present in an aggravated form; whereas, when a large proportion of the cases had no external wound, the evils in question were greatly mitigated or entirely absent. At this period he was engaged in a perpetual contest with the managing body, who, anxious to provide hospital accommodation for the increasing population of Glasgow, were disposed to introduce additional beds beyond those contemplated in the original construction. Owing to the firmness of his resistance in this matter, though his patients suffered from the evils mentioned to an extent that made him sometimes feel it a questionable privilege to be connected with the institution, in none of his wards was there seen the frightful condition which sometimes showed itself in other parts of the building, making it necessary to shut them up from time to time. Lord Lister refers to a crisis of this kind which had occurred about two years before in the other male accident ward on the ground floor; that ward was separated

from his own only by a passage 12 ft. broad. The mortality there became so excessive as to lead, not only to closing the ward, but to an investigation into the cause of the evil, which was presumed to be some foul drain. On excavation there was found a few inches below the surface of the ground, on a level with the floors of the two lowest male accident wards, with only the basement area, 4 ft. wide, intervening, the uppermost tier of a multitude of coffins, which had been placed there at the time of the cholera epidemic of 1849. In the meantime there had come to Lord Lister the first conception of antisepsis, and he had at once put the idea in practice. His early methods were crude no doubt, but they were effectual, and conclusively demonstrated the truth of the principle of the method. How much the new treatment could achieve under the worst possible conditions is shown by the fact that, at the very time when the shocking disclosure just referred to was made, Lord Lister was able to state, in an address delivered to the British Medical Association in Dublin in 1867, that during the previous nine months, in which the antiseptic treatment had been fairly in operation in his wards, not a single case of pyaemia, erysipelas, or hospital gangrene had occurred in them.

This is all the more remarkable in view not only of the presence of conditions likely to be harmful, but of the fact that at that very same time the unhealthiness of other parts of the same building was attracting the anxious attention of the managers. Having discovered the evil, the managers at once did all in their power to correct it. But the situation of the Surgical Hospital was still far from satisfactory. Besides having along one of its sides the burial place above alluded to, one end of the building was coterminous with the old cathedral churchyard; this was of large size and much used, and in it the system of "pit burial" of paupers had till then prevailed, Lord Lister saw one of the pits which was standing open for the reception of the next corpse; it emitted a horrid stench on the removal of some loose boards from its mouth. Its walls were formed on three sides of coffins piled one upon another in four tiers, with the lateral interstices between them filled with human bones, the coffins reaching up to within a few inches of the surface of the ground. This was in a place immediately adjoining the patients' airing ground, and a few yards only from the windows of the surgical wards. That pit seems to have been only one of many similar receptacles, for the *Lancet* at the time published a statement, copied from one of the Glasgow newspapers, that "the Dean "of Guild is said to have computed that 5,000 "bodies were lying in pits, holding eighty each, "in a state of decomposition, around the infirmary."

In addition to all these sources of pestilence, the fever hospital, also a long four-storied building, extended at right angles to the new Surgical Hospital, separated from it by only 8 ft. The entire infirmary, containing 584 beds, stood upon an area of two acres, and was almost always full to overflowing. Yet during the two years and a quarter that elapsed between the Dublin meeting and the time when Lister left Glasgow for Edinburgh those wards continued in the main as healthy as they had been during the previous nine months. That this should have occurred in circumstances which, but for the antiseptic treatment, were especially calculated to produce them, is surely one of the most striking proofs of the effect of Listerism in abolishing what used to be known as "hospitalism." To use Lord Lister's own words, "Supposing it justifiable to in-"stitute an experiment on such a subject, it would be "hardly possible to devise one more conclusive."

THE PRESIDENCY OF THE ASSOCIATION.

MR. SINCLAIR WHITE was at the meeting of the Central Council on Wednesday last unanimously elected President of the British Medical Association in the vacancy caused by the lamented death of Mr. Simeon Snell. Mr. Sinclair White is Senior Surgeon to the Royal Infirmary, Sheffield, and the success of the annual meeting last year was largely due to his organizing ability, geniality, and tact. He had long enjoyed the respect, esteem, and warm regard of the members of the profession in Sheffield and the districts influenced by that great centre, and last year many who had previously only known him by reputation as a surgeon learnt to appreciate those qualities which have led the Council, acting in response to the wishes of his colleagues in Sheffield, to elect him to the highest office in the Association.

THE ANNUAL MEETING.

THE annual meeting of the British Medical Association will begin in Belfast in less than three weeks after this issue of the JOURNAL is in the hands of members, for the annual Representative Meeting opens on Friday morning, July 23rd. On Tuesday afternoon, July 27th, Sir William Whitla will be inducted into the office of President by Mr. Sinclair White; on the same evening the new President will deliver his address to the Association. We publish this week, on page 26, a further illustrated article giving additional information with regard to the general arrangements made for the comfort and entertainment of members in Belfast, and as to the routes from England and Scotland to the North of Ireland. Some account also is given of the country in the immediate neighbourhood of Belfast, and of the opportunities it affords for short excursions. In a previous article information was given as to the golf courses available, and particulars of the golf competition for the Belfast Cup, presented by the Ulster Medical Society (SUPPLEMENT, May 29th, p. 321). The announcement that the cricket match for members of the Association visiting Belfast will be held on Thursday, July 29th, on the ground of the North of Ireland Cricket Club, is repeated in the SUPPLEMENT for this week, and we understand that the Secretary, Dr. J. W. Taylor, Dunelin, Malone Road, Belfast, will be glad to receive the names of intending players at the earliest possible date, so that he may be able to make definite arrangements for the match. In the SUPPLEMENT will be found also the extended programme of the Sections, and in most instances we are able to publish synopses of the papers by which the discussions in the various Sections will be introduced.

BIRTHDAY HONOURS.

AMONG the honours which the King was pleased to bestow on the occasion of the official celebration of his birthday are baronetcies to Sir Dyce Duckworth, Treasurer of the Royal College of Physicians of London, Consulting Physician to St. Bartholomew's Hospital and Senior Physician to the Seamen's Hospital, Greenwich, and Mr. Henry Morris, President of the Royal College of Surgeons of England, Treasurer of the Imperial Cancer Research Fund and Epsom College, and Consulting Surgeon to Middlesex Hospital. Sir Henry Morris has been President of the Royal College of Surgeons since 1906. The

honour of knighthood is conferred upon Lieutenant-Colonel W. B. Leishman, R.A.M.C., who joined the Army Medical Service in 1887, and became Brevet Lieutenant-Colonel in 1905; his contributions to tropical pathology are well known to all students of the subject, and he is at present Professor of Pathology in the Royal Army Medical College. Surgeon-General L. D. Spencer, C.B., I.M.S. (ret.), a Honorary Surgeon to the King, has been promoted to be a Knight Commander of the Order of the Bath. The Companionship of the Bath has been conferred on Colonel de Burgh Birch, Administrative Medical Officer of the West Riding Division of the Territorial Force, and Professor of Physiology in the University of Leeds; also upon Surgeon-General H. R. Whitehead, P.M.O. Southern Command. He entered the army as surgeon in 1882, and saw active service with the Tirah expedition, 1897–8, being present at Dargai and at other actions. For these services he was mentioned in dispatches, received the medal with two clasps, and was promoted to be Lieutenant-Colonel. The Companionship of the Order of St. Michael and St. George has been conferred upon Dr. W. J. R. Simpson, Professor of Hygiene at King's College, London, in recognition of his services on various missions in connexion with plague and the promotion of public health in the colonies. A like honour has been received by Dr. P. J. Garland, Deputy P.M.O., Gold Coast, in recognition of services in connexion with the outbreak of plague at Accra. The Companionship of the Order of the Indian Empire is conferred upon Lieutenant-Colonel R. N. Campbell, I.M.S., at present officiating as Inspector-General of Civil Hospitals in Eastern Bengal and Assam; he saw active service during the operations against the Naga Hill tribes in 1879–80, and also with the Akha expedition in 1883–4. Mr. Edgar Thurston, L.R.C.P., Superintendent of the Government Central Museum, and Superintendent of Ethnography in Madras, receives the same honour. The Kaisar-i-Hind gold medal has been conferred upon Dr. Temulji Bhikaji Nariman, L.M., F.R.M.S., of Bombay. The King has also been pleased to appoint the following officers to be Commanders of the Royal Victorian Order: Colonel Charles Edward Harrison, Honorary Surgeon to His Majesty, Brigade Surgeon Lieutenant-Colonel, Grenadier Guards; Colonel Douglas Wardrop, Commandant and Director of Studies, Royal Army Medical College. We may also note that Mr. Francis Galton, who has done so much to advance the study of the science of heredity and to perfect the method of identification by finger-prints, has received the honour of knighthood, as has also Professor T. E. Thorpe, C.B., F.R.S., Director of the Government laboratories.

THE CHILDREN ACT AND UNQUALIFIED PRACTICE.

WE recently drew attention to the fact that under the Children Act, 1908, failure to provide adequate food, clothing, and medical aid is now deemed to be neglect of a child in a manner likely to cause injury to health. Such neglect is made a criminal offence, and it is important to remember that, by an Act passed in 1861, those who aid and abet a criminal act may be held criminally responsible. That a quack who is guilty of aiding and abetting may be held liable is illustrated by a case recently heard at Tynemouth, to which our attention has been called by Dr. Mears. The clothes of a child who had been left alone in a room took fire, with the result that it was seriously burnt. The mother applied a lotion stated to consist of lime-water, calomel, and oyster shells, supplied by a woman named Hannah Forrest, and this person was summoned to attend the child. She so attended for about two months; the child died, and Dr. Holgate, who had been called in about four days before the death, said that the whole of the right arm was one raw mass, and that there was a possibility that the child's life might have been saved if a doctor had been summoned earlier. Medical evidence was given to the effect that the lotion was irritating and improper for the treatment of burns. The mother was prosecuted for neglect, at the instance of the National Society for the Prevention of Cruelty to Children, but, having regard to the loss she had suffered by the death of the child, the magistrates took a lenient view and dismissed the case. Hannah Forrest, however, was summoned for aiding and abetting in the neglect. The Chairman said the Court thought it was owing to Mrs. Forrest's influence upon the mother that a medical man was not called in sooner. They fined the defendant 20s. and costs. The defendant was reputed to have "inherited the gift of "healing from her mother." It is hoped that this case may receive all the publicity it deserves. Quacks like Mrs. Forrest have long preyed upon the simplicity of the poorer classes. The chief interest of the case lies in the fact that this is, so far as we are aware, the first time the Act above referred to—namely, the Accessories and Abettors Act, 1861—has been successfully applied for the purpose of bringing a quack to justice. Section 8 provides that whoever shall aid, abet, counsel, or procure the commission of any misdemeanour, either at common law or by virtue of any Act passed or to be passed, is liable to be tried, indicted, and punished as a principal. An interesting light was thrown upon the meaning of this enactment by a case heard in 1898. There a veterinary surgeon advised that a horse was in a fit condition to work, and the owner worked it. The magistrate found that he knew it would be an act of cruelty to work it in its then state, but as he did not "cause" the act of cruelty, the summons was dismissed. The Queen's Bench Division, however, held that the defendant should have been convicted under the section of cruelly ill-treating the horse, as any one who counsels the commission of an offence may be proceeded against as a principal, although the advice given by him was the remote, and not the proximate, cause of the cruelty. It has been decided, however, that mere negligence on the part of a veterinary surgeon in making an examination and giving a certificate that meat which is in fact unsound is sound and healthy, is not sufficient to justify a conviction for aiding and abetting the exposing of unsound meat for sale. It is not difficult to imagine a number of cases in which the principle upon which the justices at Tynemouth acted may be applied. The bonesetter who ventures to meddle with that which is the business of regular practitioners, the charlatan who advertises a nostrum capable of curing every disease, the exponent of a fancy religion who preaches a doctrine which is contrary to the dictates of science and common sense—all these persons aid and abet poor and ignorant parents who fail to provide their offspring with skilled medical assistance. For such neglect there can be no excuse.

THE PSYCHOLOGICAL BASES OF ORATORY.

IN connexion with the subject of speech fright, which has during the last few weeks been discussed a good deal in the BRITISH MEDICAL JOURNAL and elsewhere, reference may be made to an article in the last issue of the *Revue philosophique*, in which Dr. G. Saint-Paul discusses the psychological bases of oratory. He has analysed the different methods of preparation adopted by speakers, and groups them under the three following heads: The graphic method, visual or

auditory premeditation, and "verbo-motor" premeditation. The graphic method consists in writing out either the whole speech or the parts of it that are meant to tell. Dr. Saint-Paul says that some actors write out their parts. Coquelin *cadet* used to copy cut all his parts, as he found that this imprinted them more strongly on his brain. Those who, as Rogers said of Ward in his bitter epigram, prove their possession of a heart by getting their speeches by it, have generally a visual memory which enables them, as it were, to read the manuscript with the mind's eye. Such speakers will tell one that the facility of their delivery is in direct proportion to the clearness of their visual memory. Those who prepare for oratorical efforts by "auditory premeditation" also learn their speeches, and deliver them as they are dictated, so to speak, by an inner voice. Those who prepare by "verbo-motor premeditation" first speak their speech mentally—in the words of Montaigne, they make their words sound to their mental ear before they utter them—then deliver it aloud, generally while walking about. Cicero recommended orators to declaim their speeches beforehand. Nevertheless, he himself took the precaution to write them out afterwards in the form in which he wished them to go down to posterity. It is said that the famous *Oratio pro Milone* as delivered was so different from the revised version that the exiled client, when he read it, exclaimed, "Ah, Cicero! If you had spoken this I should not now be eating figs at Marseilles." There are some who only think in speech; the act of speaking causes an excitement which facilitates psychic activity and its verbal expression. As Alphonse Daudet puts it, "thought "comes to them at the sound of their own words as "lightning comes at the sound of bells." He makes Numa Roumestan—the original of whom we suppose was Gambetta; at any rate, he is intended to portray a typical Southern orator—say, "When I do not speak "I do not think." It will be seen that the psychological bases of oratory vary considerably in different persons. Speech fright has a physiological, and perhaps a pathological, as well as a psychological aspect, which is well worthy of study. How are we to prevent that horrible feeling which a distinguished novelist—a doctor, we regret to say—has described, in a language of his own invention, as *Adhaesit faucibus ora?* How are we to avoid accidents such as befell Addison when he began a speech: "Mr. Speaker, I conceive ——" repeating these words three times without being able to get any farther—whereupon another member said: "Mr. Speaker, "Mr. Addison has conceived three times and brought "forth nothing"? How are we to guard against forgetting all the fine things we thought of in the tub, as Thackeray says? How are we to train ourselves to deal effectively with interruptions? Nothing is more annoying than the thought of a deadly retort when it is too late—*l'esprit de l'escalier*, as the French call it. As Mr. Lyttelton pointed out the other day in distributing the prizes at St. Thomas's Hospital, the art of speaking is helpful to doctors, and they have the best opportunities of learning it. Politicians and lawyers must often speak before impatient audiences as before unsympathetic or irascible judges, but the doctor could always find one deeply attentive and, indeed, enthusiastic listener, especially if his advice was agreeable. In the meantime, we may say that Dr. Saint-Paul is collecting facts that may help to elucidate the psychology of the subject, and he invites speakers to tell him—in confidence, if they wish—their methods of preparation. No detail, he says, is to be considered too trivial to observe—the cultivation of the memory, the influence of diet and tobacco, that of nervousness, errors or difficulties of pronunciation, etc. Should any of our readers feel disposed to give their personal experience, they should send their communication to Dr. Saint-Paul, care of the Editor of the *Revue philosophique*, published by Félix Alcan, 108, Boulevard St. Germain, Paris.

THE READING PATHOLOGICAL SOCIETY.

THE publication of Dr. J. B. Hurry's *History of the Reading Pathological Society*[1] almost coincides with the erection of the memorial cross to Henry the First presented by him to the Corporation of the Borough of Reading, and unveiled by Mr. Birrell, M.P., on June 19th, in Forbury Gardens, close to the ruins of Reading Abbey. At first sight there seems little or no connexion between the two incidents, but a rapid perusal of this interesting volume proves not only that the members of the Pathological Society are worthy and capable of upholding the reputation for scholarship enjoyed by Reading since the days of Henry Beauclerc, but also that they are, in a sense, the successors of the old monks, inasmuch as they are engaged in carrying on a portion of the monks' work. In addition to their numerous other labours the monks of Reading Abbey looked after the sick, and were, in fact, the doctors of the little town. In 1134, long before the completion of the Abbey, the Leper House of St. Mary Magdalen was built, and there was also a herb garden attached to the monastery. For four centuries the town of Reading grew and developed under the shadow of the great Abbey, till the Reformation swept away her patrons. The Abbey was dissolved in 1539, and 300 years later the medical men of Reading banded themselves together and formed the Reading Pathological Society, which still exists in a flourishing condition. The Society was founded on July 13th, 1841, "for the discussion of medical and surgical "subjects, of cases, and of other matters con-"nected with the profession." Two presidents were elected, one to represent medical and the other surgical interests (a custom which prevailed for over forty years), and at each meeting a paper was read and specimens exhibited. The Reading Medico-Chirurgical Society, established in 1824, "for the pur-"pose of maintaining a medical library and diffusing "medical literature," assisted the new body with all the means in its power, and the two societies eventually amalgamated. Its members have accomplished much good work. Not only have many of them contributed considerably to medical literature, but the whole body has been noted equally for its interest in the progress of science and in the philanthropic schemes of the day. Finally, Dr. Hurry says: "It is not too much to say that the society has accom-"plished a great work such as few provincial societies "can rival. It has consistently promoted a lofty "standard of practice, and has helped to banish "'envy, hatred, and malice, and all uncharitable-"'ness.'" After a brief sketch of the founding of the society, Dr. Hurry gives an outline of the work of each session, from 1841 down to 1908, with a list of the papers read and the specimens shown at each. A list of all the presidents, readers of retrospective addresses, orators, honorary secretaries, and members is added in the form of an appendix, together with a description of the library and pathological museum belonging to the society, and also the contents of the latter, and of the portrait gallery. The book is beautifully bound, and contains some very fine illustrations, principally reproductions of portraits of former presidents. It is interesting, not only because it shows the great strides

[1] *A History of the Reading Pathological Society.* By Jamieson B. Hurry, M.A., M.D., President of the Society. London: J. Bale, Sons, and Danielsson, Limited. 1909. (Demy 8vo, pp. 179, with illustrations. 7s. 6d.)

made by medicine during the last seventy years, but also as a proof of what a band of earnest and practical men can accomplish when working together for the good of mankind and the advancement of knowledge.

FATAL POISONING BY GASES GIVEN OFF BY FERRO-SILICON.

A SWEDISH steamer, the *Olaf-Wyk*, having six passengers, left Gothenburg for Antwerp in February, 1907, having on board fifteen tons of ferro-silicon in wooden casks bound with iron, and stowed under the passengers' cabins. On leaving port the sea was rather rough, and two of the passengers became unwell and vomited several times during the night. The following day the steamer encountered a gale, so that it was impossible to remain on deck, and all the passengers suffered from identical symptoms—headache, difficulty in breathing, profuse sweating, nausea, and weakness of the lower limbs, which diminished on going into the open air but increased on returning to the cabins. Throughout the whole of the forepart of the vessel, where the cabins were situated, there was an irritating, insupportable smell, which the sailors attributed to lucifer matches among the cargo. The woman who attended to the cabins, and the captain, whose cabin was near those of the passengers, were also unwell. Towards evening the captain gave up command of the ship to the mate and went to his cabin, but, becoming more and more unwell and not being able to put up with the smell, he returned to the deck, and after talking a little with the mate finally went to sleep in the mate's cabin, which was in another part of the steamer. The passengers complained strongly of the smell in their cabins, but as they attributed this in part to the vomited matter and their symptoms to seasickness, and were reassured by the fact that except the captain hardly any one else on board was affected, they tried to sleep. Two luckily did not succeed, and, although very feeble, left their cabins and were saved; one of the others was alive but unconscious in the morning, and died later on, but at 8 a.m. the other three were found by the captain to be dead. *Post-mortem* examinations were made five days later by Drs. Van Bever and Bailleux, police-surgeons at Antwerp. Identical conditions were found in all four bodies; the blood was fluid, of a reddish colour, like gooseberry juice, and the right ventricle was distended with fluid blood; the muscles were also reddened; there was congestion of the brain and its membranes, congestion of the lungs, and internal congestion of the alimentary canal and of the other abdominal organs. Poisoning being suspected, various investigations were made, but the only positive result was that traces of arsenic were found in all four subjects. The examination of the cargo suggested nothing at fault, apart from the matches which for other reasons could be excluded, except the ferro-silicon, with which various experiments were made. This substance occurs in small pieces about the size of a nut, and gives off gas abundantly when pounded in damp air. An analysis made of a large sample obtained directly from the factory showed that a ton gave off 245 grams, or 161 litres, of phosphuretted hydrogen, and 25 grams, or 7 litres, of arseniuretted hydrogen, so that the 15 tons of cargo were capable of emitting 2,415 litres of the first and 108 litres of the second gas. The violent shaking of the steamer caused by the state of the sea, and the damp air of the holds, the casks not being closed hermetically, supplied the needful conditions for the formation of the poisonous gases. The case was related by Drs. G. Bruylants and H. Druyts at a meeting of the Belgian Academy of Medicine (*La semaine médicale*, 1909, No. 24, xcv), and they stated that two cases of poisoning occurred in 1906 at Duisberg on board a boat which was carrying ferro-silicon. In December last the deaths of five Russians on board the steamer *Ashton*, between Antwerp and Grimsby, were at first supposed to be due to cholera, but were finally attributed to the gaseous emanations from the ferro-silicon, and the cases were briefly reported in the JOURNAL (January 9th, 1909, p. 127). Dr. J. F. Robertson, of Elthorpe, also recorded (JOURNAL, May 15th, 1909, p. 1179) two cases seen by him on October 20th, 1905, when he was called to see two children, aged 3 and 4 years respectively, lying ill on a canal boat. Both died, and as he was unable to certify the cause of death, a *post-mortem* examination was made and certain viscera, with samples of the cargo, were sent to an analyst, who reported that no poison could be found in the viscera, but that the cargo proved to be ferro-silicon, which would, under certain conditions, give off poisonous gases. In the Grimsby case it was stated at the inquest that the German manufacturers had assured the Great Central Railway Company, which owned the ship, that the ferro-silicon was now manufactured by a process by which all its dangerous characters were removed. The worthlessness of the assurance was evident, and, unless properly packed in soldered metallic cases, it cannot be comsidered a safe cargo.

MEDICAL TESTIMONY AS TO CHRISTIAN SCIENCE.

IN the BRITISH MEDICAL JOURNAL of June 5th reference was made to certain statements as to cures by means of Christian Science, made by Mr. Walter Wilding, M.R.C.S., L.R.C.P., sometime medical officer of health for Hindley, Lancashire. These statements were made in the *Onlooker* of March 28th, 1908. Briefly, Mr. Wilding said he had seen a case of valvular disease of the heart complicated with disease in other organs, and getting steadily worse, which was completely cured by the prayers of a Christian Scientist. Another case was that of a young man "whose knee-joint was quite "disorganized by disease to little more than a pulp" on whom "the surgeons of one of our largest hospitals" proposed to do excision of the knee-joint. But the patient "turned to Christian Science and was healed "instantaneously." Mr. Wilding examined the knee the day before and again the day after the healing, with the result, as may be gathered, that he was himself "healed instantaneously" of his belief in surgery as well as medicine. He related other wonders, such as the cure of consumption, tuberculous joints, paralysis, and other diseases, by Christian Science. Mr. Frederick Dixon, in a letter published in the *Outlook* of June 26th, alludes to Mr. Wilding's "evidence," and seems to imply that the fact that we did not dispute that gentleman's "qualifications" proves the genuineness of the cures. Readers have only to turn to the article in question to see that the way in which it is referred to by Mr. Dixon is misleading. We do not dispute Mr. Wilding's legal qualifications, but the fact that a man possesses a medical diploma in medicine and surgery does not in itself prove that he has a sound critical judgement, or that he can appreciate the value of evidence. In regard to the cures spoken of by Mr. Wilding, our point is that there is no evidence whatever except his own testimony. The possession of medical diplomas, unfortunately, does not prevent a man from making mistakes, nor does it safeguard him from the pitfalls of credulity. We asked Mr. Wilding to supply details of the cases, which could not fail to be interesting and instructive to the profession, but so far no further evidence has been forthcoming.

Yet there must be some among our readers who were acquainted with Mr. Wilding in what we suppose he regards as his unregenerate days, and could tell something of the cases. We appeal again to Mr. Wilding himself; we think he owes to humanity, if not to the profession which he has abandoned, a full and properly authenticated report of his cases. In the interest of Christian Science itself the cases should be critically investigated. Mr. Wilding can have no other wish than that the truth should prevail; but if it is to prevail it must be known. He and his brethren of the household of the Christian Science faith have it in their power to silence criticism by bringing their facts to the touch of critical inquiry. So far they have given us nothing but personal "testimonies of healing" which are worthless, and mere assertions which we have no means of verifying. Why do they not report their cases, including failures as well as successes, with all the relevant circumstances, as medical cases are reported? If the evidence is sufficient, *causa finita est*, disease will be conquered in the sign of Mrs. Eddy, whatever that may be, and dethroned medicine will have to find itself a dishonourable grave.

HOSPITALS AND LEGACY DUTIES.

THE Chancellor of the Exchequer on June 25th received a memorial relative to the effect on charitable undertakings, including hospitals, of the increased or new taxes which the Budget now before the House of Commons designs to impose. The request of the memorialists was that Mr. Lloyd George will consider whether the Finance Bill cannot be amended so as to release from legacy duty such bequests as in the opinion of the Commissioners of Inland Revenue are designed for charitable purposes, and so that all land sold or let by charities for their benefit in any sense whatever would be excluded from the operation of the section, which proposes to impose a 20 per cent. duty on the estimated incremental value of land. The application is well entitled to consideration, for even if charitable institutions were exempted from the direct operation of the clauses in question, they will still be sufferers from the operation of the new Finance Bill. It has been calculated that 15 to 25 per cent. of all the bequests they receive are in the form of residues of estates, and the increase in estate and succession duties must greatly diminish the amounts of such residues. This effect will, it is argued, be accentuated by the new method introduced by the bill for the valuation of agricultural land when estate duties have to be paid. Further, the general increase in taxation must inevitably lead to a reduction in the amount received by subscriptions, and donations have already been discontinued or reduced on this ground. The memorial bore the signatures of representatives of the King Edward's Hospital Fund and the Metropolitan Hospital Sunday Fund, of the chairmen of a great number of hospitals in the metropolis and the provinces, and on behalf of benevolent societies of all kinds. Averaging the last five or six years, the amounts annually inherited by charities may be put down as not less than £3,000,000; but, of course, by granting the memorialists' requests, Mr. Lloyd-George would not sacrifice the whole of the death dues on this amount. The sums received by hospitals in this way are not inconsiderable. Thus, the sixty-nine London hospitals whose financial position was discussed in these columns on June 20th last year returned between them a total of £335,962 as having been received by way of legacies in 1907. It is not possible to calculate precisely how much the trustees of the various estates together paid in duty in respect of these sums, because the exact percentage would vary in each case according as whether the bequest was a residue or a definite legacy. In the former case the amount would vary with the gross value of the estate, and also according as whether the gift was absolute or in the form of a trust. Nevertheless it still remains possible to gauge the extent of the demand made, so far as hospitals are concerned. Since only definite legacies seem to be in question, 25 per cent. of the total amount mentioned should be deducted. If, then, 1907 be taken as a fair average year, and a percentage be added in respect of legacies to hospitals other than those which figured in our list, a fair estimate of the amount which Mr. Lloyd George is asked to sacrifice is £35,000, a small sum in comparison with the services which these hospitals render to the State by fighting against disease, by nursing the sick, by saving lives, by lessening the number of widows and orphans, by restoring breadwinners rapidly to the ranks of labour, and by their general civilizing influence.

THE AUSCULTATION OF MOTOR ENGINES.

OUR contemporary, *Motor Traction*, has drawn attention to the uses to which a stethoscope may be put in diagnosing the ailments of a motor car. The idea is not an absolutely new one, inasmuch as mechanics often use a piece of wood as an extemporized stethoscope, and the writer has often made use of an ordinary binaural stethoscope for listening to parts of the mechanism in motion. It is convenient to use rubber tubes of at least twice the ordinary length, as the places to be listened to may be a little inaccessible, and also, in order to hold the end in place, to attach to it a light cane by indiarubber bands; a rubber pad upon the end will also be found advantageous. The writer happened to be possessed of one so modified for a very different purpose, namely, for listening to the hearts of animals in the Zoological Gardens, where it was advisable to refrain from putting one's head into too close proximity to creatures of uncertain temper. When an abnormal sound occurs in a motor it is often very difficult to locate, since it is freely conducted along the metal so that it may appear to come from a place quite distant from its real source, but a stethoscope will enable it to be traced home to its origin. The chief uses to which it may be put are the detection of a broken ball in ball bearings, friction in a bearing whether due to a defect or to deficient lubrication, a broken or leaky piston ring, or imperfect closure of exhaust or inlet valves; the last-named lesion can be diagnosed with as much certainty as a lesion of the heart. Ignition failures, due to a fault in the induction coil, are both common and hard to detect. But as the failure is generally due to a breakdown in the internal insulation, when the coil is auscultated a sharp tick due to the passage of a spark may be heard when the current is switched on or off. If this is heard it is nearly certain that the insulation has broken down, and that the coil is more or less completely incapacitated. But the absence of the tick is not equally diagnostic, for insulation may have failed in such a manner that no spark occurs, as for example when damp having got access to the insulation it has been rendered generally insufficient over a large area. Whilst on the subject, another medical method may be mentioned—namely, palpation, which sometimes comes in usefully; friction or knocks may often be felt by the fingers pressed upon the outside, even where the thickness of metal is considerable.

"THE GLOUCESTER ROYAL INFIRMARY."

ON the occasion of the King's visit to Gloucester on June 23rd it was announced that His Majesty had been graciously pleased to give his permission for the

Gloucester General Infirmary to be known henceforward as the Gloucester Royal Infirmary, "in recognition of the admirable work done by those "responsible for its management, and the devoted "and successful efforts of its staff in the prevention "and alleviation of human suffering." When the infirmary was founded, in 1755, George II presented 9,200 ft. of rough oak timber from the Forest of Dean for use in the new building. The last occasion on which Gloucester received the honour of a royal visit was July 24th, 1788, when George III, with the Queen and the Princesses Augusta and Elizabeth, visited the infirmary, and in its minute books is a statement that Their Majesties "expressed their approbation of the "attention of the Faculty to the health of the "patients and of the cleanliness and good order with "which the house appeared to be conducted."

AT the meeting of the Physiological Society held at Oxford on June 26th Professor Gotch, who presided on the occasion, after a sympathetic speech, presented to Dr. Pavy, in commemoration of the eightieth anniversary of his birth, a silver bowl bearing the following inscription: "Frederick William Pavy, M.D., "F.R.S., May 29th, 1909. From the Physiological "Society, in token of affection and admiration."

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Anaesthetics Bill introduced last week by Mr. Cooper was issued on Tuesday last, and is to take the place of the bill recently withdrawn. This new bill requires a medical practitioner or a dentist applying for registration on or after January 1st, 1912, to submit evidence of having received practical instruction in the administration of anaesthetics, and prohibits any person not a registered medical practitioner or a registered dentist administering an anaesthetic except under certain conditions. It also prohibits any certificate of death being given in the case of any person dying under an anaesthetic. The first clause requires every applicant for registration under the Medical and Dental Acts to produce evidence of instruction in the administration of anaesthetics. The second clause imposes penalties of £10 for a first offence and £20 for a subsequent offence on any person not a registered medical practitioner or a registered dentist who administers any anaesthetic, by inhalation or otherwise, or any drug or mixture of drugs for the purpose of producing unconsciousness during any operation or procedure, or during childbirth. It makes an exception for an assistant in a case of urgency, when acting under the direction of a registered practitioner or dentist. The General Medical Council is empowered by Clause 3 to make orders or regulations to carry out the Act. The second reading is put down for July 19th.

Experiments on Living Animals.—Mr. George Greenwood asked the Secretary of State for the Home Department whether his attention had been called to the statement made by the inspector of experiments on living animals in the return for the year 1908, to the effect that one licensee who held Certificate B, authorizing exposure to *x* rays and the application of heat to the skin under anaesthetics, carried out these procedures without an anaesthetic; whether he would state the name of the licensee referred to, and the number and nature of the experiments so performed without an anaesthetic; and if he proposed to institute any legal proceedings in respect of the violation of the law in this case. Mr. Gladstone replied that the experiments were 42 in number. Their nature was stated in the report, and was quoted in the question. They were not of a severe character, and might have been performed without an anaesthetic if the licensee had obtained the proper certificate for the purpose. The error of the licensee arose from a misconception as to the extent of his two certificates A. and B., and was not so serious as to call for legal proceedings. The matter was dealt with by admonition.

Nurses' Registration, which is hopeless for this session, is likely to be pushed more energetically next year. With this object an influential conference was held at the House of Commons on Monday last between representatives of the Royal Society for the Registration of Nurses, the Royal British Nurses' Association, the Association for the Registration of Nurses in Scotland, and the similar society for Ireland. Lord Ampthill presided in the first instance, and Mr. Munro Ferguson afterwards acted as chairman. The new bill, which will be, when agreed upon, backed by all the influence of the societies named, is to be drawn up by a committee composed of five members from each association. It is thought that concentration of these forces on a measure accepted by all will facilitate legislation.

Collodion, Ether, and Chloroform.—Last week the President of the Board of Trade, in reply to Mr. Fell, said that the total imports of collodion, ether, and chloroform into the United Kingdom in 1908 were as follows: Collodion, 85 gallons; butyric ether, 341 gallons; sulphuric ether, 397 gallons. The imports of acetic ether and chloroform were recorded by weight and amounted to 3,207 lb. and 936 lb. respectively. There was no official information available with regard to the quantities manufactured in the United Kingdom.

Tuberculosis in Ireland.—Mr. Hugh Barrie asked the Chief Secretary how many deaths occurred in Ireland last year from tuberculosis; what was the rate per 1,000 of the population; and would he give the same figures for the preceding two years? Mr. Birrell said that he was informed by the Registrar-General that the number of deaths in Ireland in 1908 from all forms of tuberculous disease was 11,293, or 2.6 per 1,000 of the estimated population. The numbers in 1906 and 1907 were 11,756 and 11,679 respectively, or 2.7 per 1,000 of the population.

Calves and Glycerinated Calf Lymph.—Mr. Lupton asked whether the calves used for the production of glycerinated calf lymph were slaughtered before the lymph was issued to public vaccinators, or whether they were only hired and were afterwards returned to the owners; and whether, in the latter case, any steps were taken to ascertain if they were suffering from disease or not. Mr. Burns said that the calves were hired, and after the lymph had been collected they were removed by the owners. Each calf was slaughtered as soon as practicable after its removal. A *post-mortem* examination was made, at which a veterinary surgeon—engaged for the purpose—was present. He made a careful examination of the carcass and of the viscera in order to ascertain whether the calf was in perfect health, and immediately afterwards sent in a certificate as to its healthiness or otherwise. The lymph was not issued unless a satisfactory certificate had been received.

Death after Vaccination.—Mr. Lupton called attention to a case of a child, 8 weeks old, who had been vaccinated in four places, notwithstanding that it had a broken thigh, and asked if the vaccination was in accordance with the instructions of the Local Government Board. Mr. Burns answered that he was aware of the inquest on this child, and he had obtained a copy of the depositions taken by the coroner. It appeared from the evidence of Dr. Wainwright, who made the *post-mortem* examination, that there was an old fracture of the thigh, which had set badly, and that the child had been vaccinated. The depositions did not contain the statement attributed to Dr. Wainwright in the question, but he had seen a newspaper report of the proceedings in which the statement appeared. If the public vaccinator had been of opinion that the child was not in a fit and proper state to be successfully vaccinated he should have given a certificate of postponement; but he understood that he found the child's condition at the time of vaccination quite satisfactory, and that the fracture of the thigh was healed many days before the vaccination took place. It did not seem to be necessary to take any special action in the matter.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

GLASGOW ROYAL INFIRMARY.

New Surgical Block.

THE new surgical block of Glasgow Royal Infirmary was opened on June 23rd by Lord Provost M'Innes Shaw. About 700 ladies and gentlemen were present. The Lord Provost, in declaring the new buildings open, congratulated the managers on having so far succeeded in achieving their aims. The next portions of the reconstruction scheme to be undertaken were (1) the third ward wing of the surgical service, (2) the pathological buildings, (3) the isolation house, and (4) the east or special diseases block, containing the wards, theatres, etc., for the treatment of these diseases, and also for accommodating the entire administration of the infirmary. It was only possible to say approximately what the cost of the whole completed scheme would be, but the managers were advised that it would probably reach £500,000. Towards that large estimated cost there was available about £320,000. The new building was then formally declared open.

Medallion of Lord Lister.

The Lord Provost, in calling upon Dr. Barlow to present a medallion portrait of Lord Lister, said it was in the Royal Infirmary that Lord Lister discovered the antiseptic system of wound treatment, by which it was found possible to avoid the deplorable results which formerly followed many serious surgical operations. Glasgow was proud of her connexion with Lord Lister, and they would recall with satisfaction that the Corporation some months ago enrolled his name among the honorary burgesses of the city. The medallion is fixed on the wall opposite the entrance hall of the new block. It is the work of Mr. Johan Keller, and is executed in bronze. The inscription on the framework records that Lord Lister was one of the surgeons of the Royal Infirmary from 1861 till 1869, and that in that institution he organized the antiseptic system of surgical treatment. The medallion is the gift of past and present members of the staff. Dr. Barlow, in presenting the medallion, said that the saving in lives and in suffering as a result of the adoption of the antiseptic system had been enormous. He expressed the hope that the presence of the medallion of Lord Lister, the never-tiring student, the skilful surgeon, the warm-hearted and the gentle man, might ever act as a stimulus to his successors in the infirmary in their efforts to prolong the lives and diminish the suffering of the patients under their charge. Mr. J. D. Hedderwick, on behalf of the managers, accepted the medallion. Mr. J. Rickman Godlee, a nephew of Lord Lister, gave an address on Lord Lister and his connexion with the Royal Infirmary. At the outset he remarked that Lord Lister took a great and lively interest in that ceremony. They would, he was sure, sympathize with Lord Lister in his illness, and they would perhaps desire him to convey to him some expression of that feeling, together with an account of the proceedings. More especially would that be the desire of those to whose memory he was familiar in the form of that admirable medallion. That was how they liked to remember him—full of life, of tireless energy, strong of purpose, wise of judgement, a perennial spring of new thoughts and new ideas, with a kindly smile upon his benevolent countenance, whether of welcome or of sympathy, and a twinkle of the eye that marked his sense of humour. Professor Godlee, having referred to the surgery of the Sixties and to that of the present day, said Glasgow was to be congratulated, and was probably proud to acknowledge, that the great antiseptic gospel was first preached in her midst. What those who saw most of Lord Lister's work were chiefly impressed by was, first, his habit of looking at all problems, old or new, for himself, and taking nothing for granted without applying to it the severest tests and satisfying himself of its truth. In the second place, they were impressed by the intense earnestness of his work; and, thirdly, by the fact that no problem, no experiment, no operation of whatever sort, was ever relinquished until it was finished.

MEDICAL INSPECTION OF SCHOOLS.

A meeting was held in the Medical Club, Carlton Place, Glasgow, on Tuesday, June 29th, of representatives from all the medical societies of Glasgow to consider the question of medical inspection of schools, and more especially the remuneration that it was proposed to give to the medical officers about to be appointed. A number of gentlemen spoke, and while several were of the opinion that no part-time appointments should be made, on the motion of Dr. Caskie it was unanimously resolved that the remuneration to the quarter-time medical officers, whom the school board propose to appoint, be made on the basis of a sum of half a guinea per hour. It was further unanimously agreed that a small committee be appointed to draw up a memorial embodying the views of the meeting as expressed by Dr. Caskie, and that this same committee be empowered to go as a deputation to the school board should they consider it advisable.

PRESENTATION TO PROFESSOR CLELAND.

The medical students of Glasgow University met in the Union on June 25th to make a presentation to Professor John Cleland, whose intention to retire from the Chair of Anatomy, which he has occupied for thirty-two years, has been announced. Mr. R. R. Archibald, President of the Students' Union, presided. Mr. J. B. Galbraith, President of the Students' Representative Council, on behalf of the subscribers, presented Professor Cleland with a handsome carriage clock.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

SCARLET FEVER AND MILK.

AT the meeting of the London County Council on June 29th, the Public Health Committee reported with reference to certain cases of scarlet fever which occurred in Westminster recently. The M.O.H. for that city suspected that the outbreak might be attributed to an infected milk supply. Other local outbreaks were notified in Chelsea and Wandsworth, and also at Kingston-on-Thames and other parts of Surrey. The cases appeared to be traceable to one wholesale supply. The company were communicated with and stopped the supply from the suspected dépôt. Dr. Hamer, Medical Officer for General Purposes to the London County Council, and Dr. T. H. Jones, M.O.H. Surrey, met the head manager in the country on June 20th, and inquiries at a particular farm, the only one from which milk had been supplied to all the localities known to be involved, disclosed the fact that five recent cases of scarlet fever had occurred in a family the members of which had consumed milk from the farm, one of the persons affected being employed at the farm. All possible steps had been taken to prevent further infection. The committee had retained the services of Dr. Mervyn Gordon, of St. Bartholomew's Hospital, to make any bacteriological examinations which might be necessary.

STREET ACCIDENTS.

The Metropolitan Asylums Board adopted on June 19th a report of its Ambulance Committee recommending that the Home Secretary should be informed that the Board was prepared to inaugurate an efficient service of rapid ambulances for accident and emergency cases in the County of London, and also, if considered desirable, in outlying portions of the Metropolitan Police District. The scheme in view provides for some ten additional ambulance stations and the placing of a number of telephone call-boxes in the busiest thoroughfares and at the most awkward crossings. Though entirely under the Board's control, it would be worked in close co-operation with the Metropolitan Police. This renewed and specific consideration of this highly important question by the Metropolitan Asylums Board is the outcome of the report of the Departmental Committee of the Home Office, the main findings of which were recorded at page 803 of our issue for March 27th, 1909. Contrary to expectation, that committee did not recommend that the ambulance

system in view should be provided by the police; or, in other words, that the plan already in action in the City of London and in many other great centres should be adopted for London as a whole. The reason why it rejected that system seems to have been a belief that provision should be made for the rapid transport to hospitals not only of sufferers from street accidents, but also of emergency cases occurring on private premises among the poorer, but not pauper, classes. It advised, however, that the Asylums Board in establishing and conducting its extended service should act in consultation with the Commissioner of Police, and that any board of guardians possessing a rapid ambulance service of its own should be empowered to arrange with the Commissioner of Police for its use on terms to be approved by the Local Government Board. Finally, it recommended that the wheeled litters provided by various bodies and at present used by the police should be kept in commission, and only superseded when the Asylums Board system had proved fully able to take their place. The Home Office Commissioners were unanimous in their recommendations, although one of them, Sir William Collins, M.P., expressed his belief that it would be better that the maintenance and establishment of the proposed service should be left to the London County Council, which a year or more ago framed a scheme and sought powers to carry it out. For this view there is much to be said; but, as we pointed out in the article already mentioned, the recommendations of the Home Office Commissioners were in the nature of a compromise, and the scheme not such as they would have devised had they had a clean slate. Nevertheless, it is a perfectly workable compromise, and this being the case, the acquiescence accorded to the scheme by the London County Council on June 29th is very welcome. It is to be hoped that the Asylums Board will quickly get its scheme into action, for years have passed since the importance of establishing a thoroughly organized system of transporting all persons injured in the streets promptly and safely to hospitals or their homes for treatment was brought forcibly to notice by the Metropolitan Street Ambulance Association, of which the late Mr. Reginald Harrison was president. It is sad that he did not live to see the fruition of his work, in the promotion of which he was ably seconded by Dr. Arthur James. The Local Government Board is to make regulations to ensure complete separation of the new service from the existing service for infectious cases, and the cost is estimated at £10,000, which in the circumstances must be regarded as quite a moderate sum.

LEEDS.

Changes on the Staff of the General Infirmary.

The vacancy created on the assistant surgical staff by the promotion of Mr. Walter Thompson to the full staff has been filled by the appointment of Mr. Harold Collinson, M.S.Lond., F.R.C.S. Mr. Collinson was a Leeds student, and has held the resident appointments of house-surgeon, resident casualty and resident surgical officer, and at the time of his appointment he was assistant surgeon in charge of the semiconvalescent hospitals. To the position vacated by Mr. Collinson the special election committee has just appointed Mr. L. R. Braithwaite, M.B., Ch.B.Vict. and Leeds, F.R.C.S. Like Mr. Collinson, Mr. Braithwaite was a student of the University of Leeds, where he had a distinguished career. Until recently he has held the position of resident surgical officer at the infirmary. As the resident casualty officer's resignation coincided in time with that of Mr. Braithwaite, the Faculty of the infirmary had the important duty of filling up the two senior surgical resident posts at one time. Out of a very large number of applicants, four were selected, and after careful consideration the following appointments were made: To the position of resident surgical officer, which is the senior post, Mr. S. W. Daw, M.B., B.S.Lond., F.R.C.S., was appointed. Mr. Daw was a student at Guy's Hospital, London, and is at present resident surgical officer at that institution. The position of resident casualty officer was conferred on Mr. A. Richardson, M.B., B.S.Lond. Mr. Richardson was a student of the Leeds School, and until recently he was one of the house-surgeons at the infirmary.

BIRMINGHAM.

The Care of the Mentally Defective.

The annual report of the Special Schools After-care Subcommittee of the Birmingham Education Committee has just been published. An investigation of statistics showed that out of 307 feeble-minded persons who had left school and were still alive, and whose whereabouts were known, only 34.8 per cent. were earning any wages, and only 5.5 per cent. as much as 10s. per week. If the numbers "lost sight of" had been included in these figures the percentage of wage-earners would certainly be still lower, for a recent investigation of the subcommittee proved that these belonged to a class who rarely become wage-earners. The After-care Subcommittee, therefore, after eight years' experience with mental defectives, repeated the opinion, previously expressed, that for a large percentage of the feeble-minded permanent supervision was necessary, for the following reasons: (1) To enable them to contribute to their own support; (2) to save them from harsh treatment at home and in the streets; (3) to prevent them becoming drunkards, criminals, and prostitutes; (4) to prevent them becoming parents of children who can only grow up to be a burden to the community. The report showed that if the care, control, and education of mentally-defective children were to cease at 16 years of age, the money so spent was wasted, and would be wasted in the future. These persons needed lifelong care and control, although all did not require the same amount of supervision. Some could be sufficiently looked after by the After-care Subcommittee, but the larger majority required treatment in industrial colonies, but to achieve this further legislation was necessary.

YORKSHIRE.

The Medical Officership at Eastby Sanatorium.

Dr. Margaret C. Macdonald has been offered, and has accepted, the post of Medical Officer to the Eastby Sanatorium of the Bradford Guardians at a salary of £130 a year. There was an error in the paragraph on this subject published last week; the salary received by Dr. Macdonald as Assistant Medical Officer to the Bradford Workhouse was £100 and not £130 a year.

Special Correspondence.

BERLIN.

Death of Paul Langerhans.—The Old Folks' Home.—A Model Infants' Home.

One of the most popular and most respected figures in the Berlin medical world has passed away. Geheimrath Langerhans—"der alte Langerhans," as he was familiarly called—eminent physician, president of the town council, for many years member of the Prussian Diet, honorary citizen of Berlin, has died at the ripe age of 90. He had for some time discontinued his consultations, but it is not too much to say that from the year 1842, when he took his degree, until his death, there was no movement making for medical progress, no stride forward in the path of public or private hygiene that did not owe a share of its success to Langerhans's vigorous and whole-hearted co-operation. Like his illustrious friend, Virchow, he was an advanced Liberal of the staunchest type; in fact, one of the very last public speeches he delivered was in favour of the political emancipation of women. Age had not dimmed Langerhans's faculties nor blunted his physical energy. Until very lately he could be seen walking in the crowded city streets on his way to or from the town council's meetings. Latterly he seemed to bear almost a charmed life, for he twice broke a leg and went through two bladder operations without more than temporary interruption of the strenuous work that filled his days. In the end death came to him almost suddenly. He had a public funeral, with speeches by official personages, including the Chief Burgomaster, Herr Kirschner.

It is years ago now that the Berlin municipality purchased the fine country seat and well-wooded park of Buch, at about three-quarters of an hour's rail from town, as a

site for future charitable institutions. A large lunatic asylum and a sanatorium for consumptives were erected there, and now a third establishment has been built—a huge home for aged and debilitated paupers of both sexes. The word "huge," when applied to a building—especially a charitable one—generally means *hideous;* but this newly-opened Alte-Leute-Stadt (old folks' home), as it is called, which is to provide permanent homes for no less than 1,500 persons, is truly a thing of beauty, in its whole disposition, on an exceptionally advantageous site, as well as in its details. Ludwig Hoffmann, the city architect of whom Berlin is justly proud, to whom it owes the Virchow Hospital, the lovely Infants' Home, and so many other fine and original public buildings, was its planner and designer. Without introducing stately façades or rich ornamentation, he has achieved beauty by effects of light and shade, by harmonious and restful lines, by variety in the shapes of the different erections, by a certain home-like aspect of things, and above all by the amount of air space and greenery, which is a luxury in itself. The buildings are grouped round four large garden courtyards (the kitchen buildings have their separate garden-court), their ground plan is thoroughly practical and simple, and the hygienic arrangements are of the best type. A sight worth seeing are the kitchens, in which meals for as many as 1,800 persons can be cooked. Men and women are separately housed, but the gardens and the four garden courtyards with their flower beds, fountains, and comfortable benches, are common ground for both sexes; and a certain number of the houses contain married quarters. Berlin now possesses no fewer than 2,286 beds for old and debilitated paupers, for the upkeep of which an annual sum of 1,132,000 marks (£56,000) has been set apart in the municipal Budget. The building expenses of the new Buch Home (without reckoning the site) amount to 6,500,000 marks (£325,000). No wonder that the Berlin burgher sighs about his high municipal rates and taxes!

Another important new institute, but State built, though on a much smaller scale, is the Charlottenburg "Kaiserin Augusta-Victoria-Haus zur Bekämpfung der Säuglingssterblichkeit im deutschen Reich." As its name—the length of which is phenomenal, even for Germany—reveals, it is largely to the personal initiative of the German Empress that this new creation owes its existence, and its opening was graced by the presence of Her Majesty and her daughter-in-law Princess Eitel Friedrich. Cabinet Ministers, high Government officials, university and municipal delegates were present at the ceremony, but it was a Court official, Herr v. Behr-Pinon, the Empress's Cabinet Councillor, who delivered the opening address. He explained the objects of the new institute, which is to combine laboratory, hospital, theoretical, and practical work, in the hope that its outcome may be the laying-down of firmly-established scientific principles for infantile feeding.

VIENNA.

Manslaughter by an Attendant in an Asylum.—Recreation Grounds.—Erection of an Accident Clinic.

AN occurrence in one of our lunatic asylums has recently caused great indignation, as it has shaken the confidence of the public in the working of the institution. A patient suffering from progressive paralysis became noisy and troublesome at night. Instead of calling one of the physicians, the attendant in charge of the ward tried to quiet the patient by wrapping him in several dry blankets. Several other men came to his help, and in the struggle the patient's hyoid bone, larynx, and some of his ribs were broken. Still the physician was not called, but when he came to make his morning rounds he found the patient moribund. Of course, the matter was brought before a law court, and at the trial some unexpected and inexcusable facts of negligence were brought to light. The scarcity of funds available for the pay of attendants, the pressure of work, and the general discredit of this occupation leads to the position being accepted only by persons of a low class. Their education is often not sufficient to make them understand the gravity and responsibility of their task. There is no doubt that in future there will be a better supervision of the attendants and nurses, as well as a better selection, for the first thing the newly-appointed manager has done has been to increase the sum devoted for the payment of this class of the asylum staff. Another good thing will be that the number of physicians will also be increased, for the present ratio—19 doctors for nearly 3,000 inmates—is hardly satisfactory.

In order to enable all those who are willing to spend their free time in open-air and outdoor occupation, the municipality opened last year a recreation ground covering an area of about half a square mile, with fresh flowing water, plenty of rivers and forest, and opportunity for gymnastic and athletic sports. The place was frequented by more than 150,000 persons last year. Now a new addition will be opened for the public in the shape of hired vegetable gardens. Bordering on the recreation ground a stretch of fertile land has been marked off where areas, each about 500 sq. ft., will be let at a nominal cost of about ½d. per month. There children will be able to stay all day long, whilst the labourer or the clerk can refresh himself with garden work after his day's toil in the shop or the factory. Similar "gardens" have been instituted in various places of Germany, France, and Italy. Not only does the work in these places lessen the expenditure of the family, owing to the vegetables or flowers that can be grown there, but it is a very important factor in promoting better sanitary conditions amongst the poorer classes, for it makes them acquainted with the value of fresh air and keeps them away from alcohol.

A very old desideratum of our surgical clinics has at last been supplied by the establishment of an "accident ward" in our Allgemeines Krankenhaus, the general hospital where nearly the entire teaching of medical art is centralized. Whilst in former years all accidents requiring hospital treatment were brought to the clinics, lately the presence of so many smaller hospitals, distributed all over the city, has robbed the clinics of this kind of case, so very urgently required for the teaching of students. The death of one of our eminent surgeons, who had obtained for his own personal use a special surgical ward in the hospital, has enabled the board of administration to hand over the beds in his ward to the clinics under the name of "accident wards." An agreement has been made with the police and the street ambulance corps that all persons injured in accidents occurring within a radius of 6 kilometres (about 3¾ miles) from the hospital must be brought into this ward. A number of students besides the ordinary resident surgeons will be housed in the ward in order to learn the important methods of first aid; military surgeons, too, will serve there in turn, as the expenses will also be partly borne by the Ministry of War. Altogether about 100 beds will be added to the present number, 40 of which will be for medical and 60 for surgical cases. Cases of fracture, bullet wounds, and similar injuries requiring immediate attendance may be brought at once into the lecture hall, if students are present.

THE will of the late Dame Henrietta Otway, of Eaton Square, which has now been proved, contains the following bequests: St. George's Hospital, London, and the Sussex County Hospital, Brighton, each £500; Hove Dispensary and the Hove Police Convalescent Hospital, each £300; the Cheyne Hospital for Incurable Children and the Grosvenor Hospital for Women and Children, each £200.

A COPY of the *Livingstone College Year Book*, which has just been published, shows that the institution succeeded last year in paying for itself, in spite of the fact that the year began with a debt of £400 on the current account. As usual, the volume contains extracts from a number of interesting letters from old students, and an article dealing with the progress of tropical medicine.

THE second member of the new Tasmanian Cabinet, the Chief Secretary, is Dr. G. H. Butler, who, as a student of Westminster Hospital, became M.R.C.S., L.R.C.P., in 1879. He has been a member of the Tasmanian Legislative Council since 1896, and four years earlier was president of the Inter-Colonial Medical Congress. He is a member of the consulting staff of the Hobart General Hospital, consulting surgeon to the Commonwealth Military Forces, and a member of the Court of Medical Examiners for Tasmania. He is also a member of the Council of the Royal Society of Tasmania, and chairman of the Tasmanian Racing Club.

Correspondence.

HERMAPHRODITISM.

SIR,—Your annotation on hermaphroditism states that it is the opinion of a distinguished French physician that in the large majority of cases it is due to the want of development of the male. I maintained this many years ago, and those cases which I have known or read of since that time have strengthened this opinion; that is, every case, on examination after death, has shown the existence of immature testes. My interest in this subject was very early awakened, when on entering Guy's museum for the first time I saw standing in a corner the plaster figure of a human being called an hermaphrodite. It had been modelled at the order of Dr. Hodgkin, who had examined the subject of it after death. He left an account of it in the museum books, and I suppose from being a Quaker, and therefore very particular in the use of the personal pronoun, he called the subject "*it*." Mary C., between 50 and 60 years of age, was admitted in a delirious state, and having been very dissipated, soon after died. It was said that this individual wore masculine attire in early life, and to have acted as groom, milkman, etc. For the last seven years *it* had passed as a female, and lived at a public-house as barmaid and general servant. The other inmates estranged themselves from her, believing that she was not an ordinary human being. *It* made light work of clearing the tap. In former years *it* had been accustomed to pugilistic encounters and much addicted to drinking. The body after death was robust, the features coarse and apparently intermediate between an old man and old woman, and the lip and chin sparingly covered with hair. Other particulars I need not give, but the most important one was that on each side of the penis-like organ there was a protuberance caused by two bodies which when taken out were found to be testicles, resembling those between six and seven years of age.

I have related this case as a typical one, but sometimes they have more marked feminine characters. For example, some years ago Dr. Oldham published a case the particulars of which he sent to the Royal Society, and in consequence the case was mentioned in the medical journals and in some works on obstetrics, notably that of Dr. Tyler Smith. The patient came to him on account of amenorrhoea. She, as Dr. Oldham called her, was feminine in every respect, so that he never suspected that she was of doubtful sex. On examination he found a small body in each groin, which he took to be a misplaced ovary. He had therefore a case before him in which he could test the question whether the ovary underwent any change at the menstrual period. He inquired of her if she felt any difference in these lumps at particular times. Whether or not "the wish was father to the thought" I do not know, but she told him that every month she felt a tenderness in them. He accordingly requested her to wait upon him at those periods, and then he found the bodies swollen and tender. He therefore had made an important discovery in showing the association of the ovary with menstruation. Some time afterwards the young woman had pulmonary symptoms, and eventually died of consumption. Dr. Oldham, having never lost sight of her, procured the assistance of a Guy's porter to make the *post-mortem* examination, and the organs of generation were to be sent to me for examination. When they arrived, the strange bodies were evidently testes, and Mr. Durham being at the hospital at the time I requested him to look at them. He confirmed my opinion, of which there could be no doubt, for we were able to drag out long tubules without any difficulty. The case is to be found in the records of the Royal Society, but not published in the *Philosophical Transactions*.

As far as my knowledge goes, it is the same in the lower animals. My butcher brought me one day a small body which he found on a leg of mutton which he had cut from a ewe. It turned out to be a testis, and the so-called ewe was an ill-developed ram. All these facts are corroborated in the cases where the testicles are removed soon after birth. In the human subject the appearance during growth becomes more feminine, no hair grows on the face, and the voice is in a higher pitch, like that of a woman.

Gilbert White, whose powers of observation have never been surpassed, says: "Castration has a strange effect; it emasculates both man, beast, and bird, and brings them to a near resemblance of the other sex. Thus, wethers have small horns like ewes and oxen large bent horns like cows, for bulls have short straight horns. Capons have small combs and gills and look pallid about the head like pullets, and walk without any parade." I might add that they become plumper and delicate eating; it is for this reason, I believe, that the operation is performed.

The word "hermaphrodite," meaning the union of Mercury and Venus, implies that this human creature possessed both sexes. However ingeniously the Greek sculptors modelled a form between girl and boy, they never adorned them, as far I am aware, with double organs. I am personally quite unable to think of such a being. We are told that in the fetus there is an organ called the Wolffian body; this is the foundation of the kidney and the most important sexual organs. From it is produced the testis or ovary, the male or female. What determines the impetus to produce one or the other is totally unknown. The belief in hermaphroditism means that it may develop into the two sexes at the same time, the female body producing ova and the male body spermatozoa. There is not the slightest evidence that such a thing has ever been seen, or even possible, in any of the higher animals. When it is seen in the lowest form of animal life, quite different structures exist, and so in most flowers. The word "hermaphrodite" is continually used for various malformations of the sexual organs. The word is misleading and should be eradicated.—I am, etc.,

Hampstead, June 28th. SAMUEL WILKS.

PNEUMOCOCCUS INVASION OF THE THROAT.

SIR,—I read the interesting papers by Sir Felix Semon and Dr. Elliot on pneumococcus invasion of the throat, etc., and was surprised to know that this condition was considered such a rarity. In 1904 I attended a child aged 8 years who suffered from enlarged and painful cervical glands, enlarged tonsils, and purulent discharge from both ears, the discharge giving a pure culture of pneumococcus.

I sent a report of this case to a medical journal, but, coming from the pen of an obscure member of the profession, it found its abode in an editor's waste-paper basket.

Since that time I have attended seven cases presenting various clinical phenomena, but all showing a primary pneumococcal invasion of the throat. As I write I have notes of several of those cases before me, two of which I shall briefly illustrate.

The first case I attended in June, 1905; the patient was a female, aged 18 years, who was convalescent after an attack of measles. When I saw her she complained of sore throat and stiffness in the neck. The cervical glands were enlarged and tender on each side, the tonsils were both enlarged and covered with a purulent membrane; the temperature was 100.4°. On swabbing the throat the membrane was very easily detached, and was practically a purulent exudate. Examination of the swab revealed diplococci in great numbers, which gave on culture a pure growth of pneumococci. Three days later the patient was attacked with acute lobar pneumonia, both lungs were involved, and I may add that this was the worst case of pneumonia I ever attended. With the occurrence of the pneumonia the throat entirely cleared up. The patient was seriously ill for a month, but made a good recovery. It would take too much space to give this case in detail, but I should like to state that after she was out of doors for about a month she complained of a slight cough and spit. Examination of the chest revealed a small dull area at the right apex, with a few crepitations. I could find no tubercle bacilli in the sputum. As this patient's home was in Sutherlandshire, I advised her to give up her residence in town, and adopt a rigid open-air treatment, which she did with complete success.

The second case was that of a male, aged 28, who presented all the features of a severe ulcerative stomatitis. Both lips, the gums, and the roof of the mouth were affected with ulcerative patches, all of which bled readily. The tonsils were covered with a purulent membrane. This patient informed me that he first felt his throat sore and

stiffness about the neck, and thought he had caught cold. Examination of a swab from the tonsils gave a growth of pneumococci in pure culture. The ulcers gave a growth of pneumococci, staphylococci, and a few other organisms. Beyond the stiffness in the neck there was no involvement of the cervical glands, and little constitutional disturbance. The temperature one evening registered 100.2°, but was practically normal throughout the course of his illness. The tongue was thickly furred, and the breath foul. In treating this case I found, after trying various remedies that 15-grain doses of potassium chlorate thrice daily, and washing the mouth and throat frequently with a saturated solution of the same salt, acted rapidly. All ulcers had disappeared in five weeks.—I am, etc.,

Edinburgh, June 28th. FREDERICK PORTER, M.B.

"FACTS" AND "THEORY" REGARDING THE TREATMENT OF SEVERE ANAEMIAS.

SIR,—Dr. William Hunter's tirade in the issue of June 12th, p. 1458, passed over my head and left me unscathed, since, although I read it carefully and with much enjoyment, I quite failed to realize that the unnamed "writer of a paper" he referred to was myself, and it was only when I found my name mentioned in Mr. Rushton Parker's letter (p. 1514) that I appreciated that it was I that had been waving the red rag in Dr. Hunter's field.

It seems scarcely necessary for me, after Mr. Rushton Parker's vindication of my use of the word "theory" to describe Dr. Hunter's views, to justify further my employment of the expression which has proved so inflammatory; but, with an apology for occupying the pages of this JOURNAL with an explanation of the use of the English language, I should like to quote the definition given in *The Century Dictionary*. "Theory" is there defined as an "intelligible conception or account of how something has been brought about," with a note to the effect that "a theory in this sense will most commonly, though not always, be of the nature of a hypothesis; *but with good writers, a mere conjecture is hardly dignified by the name of a theory.*" The italics are my own.

There are other theories of greater longevity than Dr. Hunter's—such as Dalton's atomic theory, or Darwin's theory of natural selection, which is now celebrating its fiftieth year of very active life, and Dr. Hunter should feel proud, and doubtless does, at being placed on the same pedestal with these two famous men.

Then Dr. Hunter goes on to refer to "the 'facts' about successful treatment with bone marrow," and continues, "both 'successful' cases which he refers to had relapsed, and one of them was dead three or four weeks before he was recorded as cured." Now if any one will turn to my paper they will find that Dr. Hunter's criticism is entirely beside the mark, since in my two cases referred to as having been under treatment with bone marrow, all I stated was that "the more rapid improvement in both dates from the addition of the red marrow to their dietary, and one, the worse of the two, has now kept well for six months on no other treatment, though I cannot say how long the improvement is likely to last." There is certainly no word there of "successful cases" or of being "recorded as cured," and how Dr. Hunter can know anything of the subsequent history of two rather obscure patients of mine, whose names have never been published, I cannot conceive. But things like that are always liable to happen when you put your head down, and shut your eyes, and gore the first person you come across.

Even my advocacy of his special line of treatment, which I described as adequately as I think even he could have done in the limited space at my disposal, Dr. Hunter falls foul of; and, as regards his extremely cautiously worded challenge, I can only reply that I could point to several lines of treatment wholly unconnected in any way with his theories (if I may at this stage use the word again) as to the causation of pernicious anaemia. If I may carry the matter further, I would ask: Can Dr. Hunter point to any series of successful cases of the treatment of pernicious (or, if he will, Addison's) anaemia in which the main reliance has not been upon a drug—namely, arsenic—whose value in the disease was demonstrated long before his work on the subject was begun?

There are other contentious points in his letter that I should have liked to touch upon, but I have dealt with the main ones, and occupied quite enough of your space; it only remains for me to say that I have always thought very highly of Dr. Hunter's endeavours to throw more light upon a very difficult subject, and that an extract from a favourable review by me of his book on *Pernicious Anaemia* long figured as an advertisement of that book.—I am, etc.,

Manchester, June 22nd. CHARLES H. MELLAND.

OPERATIONS ON THE PROSTATE.

SIR,—In your issue of June 19th Mr. H. D. McCulloch states that in the vast majority of cases the enlargement of the prostate is interstitial and fibrotic, due to long-standing chronic prostatitis, and that pre-existing urethral and cystic infection are important etiological factors. My experience, on the other hand, shows that most enlargements are of an adenomatous and fibro-adenomatous nature, in which the normal elements of the gland are reproduced in somewhat varying quantities. The fibrous or diffuse forms, in which there is little or no encapsulation, are decidedly in the minority. As to the statement that chronic prostatitis is a causal agent, it can be said with certainty that it is exceptional to obtain any microscopical evidence of chronic inflammation in sections cut from prostates in various stages of enlargement. There is evidence that an acute inflammation is fairly frequently engrafted on to a pre-existing adenomatous change. With regard to a pre-existing urethral or cystic infection, there is no evidence forthcoming that such exists at the time that the enlargement starts, although various micro-organisms are found in the urine when the enlargement has existed for some time.—I am, etc.,

London, S.E., June 22nd. CUTHBERT WALLACE.

SIR,—Mr. Fullerton (June 19th, p. 1513) traverses the remarks on operative procedure contained in my previous letter in the BRITISH MEDICAL JOURNAL of June 5th. In support of his opposition he submits some general considerations, and also some facts about his case not previously mentioned. These latter are scarcely germane to the argument of my letter, since, as was repeatedly stated in it, it referred to the case as recorded in your issue of May 22nd. These additional facts are of interest in their bearing upon treatment. Examples of these are: the failure to discover the stone on examining the bladder immediately after opening it, and the reason for this; the situation of the vesical orifice; the patient's choice of operation.

Mr. Fullerton now tells us that he did not find the stone before performing prostatectomy, because his finger could not reach the extreme depths of the bladder where the stone lay. This indicates that a more thorough and instrumental examination of the bladder, including its recesses, was not made. There can be no doubt that such an examination in Mr. Fullerton's skilled hands would have discovered the stone. The probable presence of stone was suggested by the history of previous haemorrhage with gravel, and by the existing haemorrhage for which no other cause is stated to have been found.

Mr. Fullerton seems to oppose suprapubic cystotomy on the ground that urethral obstruction would prevent suprapubic closure. Yet he recognizes that a temporary closure with apparently sound healing is not incompatible with some obstruction. I know from personal experience that in a case with enlarged prostate and increased frequency of micturition suprapubic lithotomy was followed by closure for some months at least. In the report (p. 1230) the only definite gauge given of the degree of urethral obstruction formerly present is that the patient passed urine once or twice at night. I still think that there is nothing in this to show that suprapubic cystotomy, followed by a more thorough exploration of the bladder and removal of the stone, would not have restored to the bladder its former degree of efficiency, or *in*efficiency, if this term be preferred. I do not, of course, refer to the acute obstruction associated with retention, to which, by the way, no cause has been assigned.

The case acquires another aspect in the light of the information now given about the site of the vesical orifice, almost immediately behind the lowest part of the anterior abdominal wall. That this should cause no more urinary inconvenience than it did is both striking and suggestive.

I think that all those of us who entertain what Mr. Fullerton regards as "erroneous views" would agree that such a condition is incompatible with suprapubic closure. But it is a far cry from this to the conclusion that therefore primary prostatectomy was the wisest treatment in this case.

Mr. Fullerton appears to be opposed to suprapubic cystotomy as an alternative to prostatectomy, irrespective of particular conditions. He has made his reply in order to satisfy me and others who hold what he thinks "erroneous views as to the value of suprapubic cystotomy in cases of enlarged prostate." If he means to satisfy us that cystotomy is bad treatment in all cases, his effort fails. If he means to do this with regard to some cases, his effort is superfluous. Were the problem a vesical one only, I think this contention would be a good one. But as the problem is not merely vesical, I think it is not necessarily right. And, in view of such conditions as do exist in some cases, I think it is wrong.

Mortality-rates are quoted in support of the procedure adopted. Toward these I feel very much as I do about the estimation of prostates by weight. That they are based upon a large series of cases of all sorts is at once their value and their weakness. In proportion to the number and variety of the cases from which the figures are drawn, so are they valuable for general statistical purposes, and so are they of little value for prognosis in the individual case. In this the immediate mortality from operation will either be 0 or 100 per cent., and the greater or lesser probability of the one or the other will depend upon the particular circumstances of the case.

Applying these considerations to Mr. Fullerton's case, we find from his original report, in the BRITISH MEDICAL JOURNAL, p. 1230, that he considered "the condition of the circulatory system" (by itself) "almost precluded the idea of any operative measures whatever." This being Mr. Fullerton's opinion in relation to an operation expected to last about two or three minutes, what would it have been in relation to a fifteen minutes' tussle, such as actually occurred, leaving his fingers, hands, and arms aching for two or three days (p. 1230)? Would he have proceeded to carry out such an operation? If not, what would he have done?

Mr. Fullerton asks what I would be prepared to do. In view of the information now supplied in his letter, in addition to that in the original report, I think the wisest treatment of his case would have been suprapubic cystotomy; thorough exploration of the bladder for the cause or causes of haemorrhage; removal of the stone; washing and draining the bladder; consideration of secondary prostatectomy. As regards the last, a short interval with its freedom from haemorrhage, retention, repetition of the previous measures for its relief, with the consequent irritation and exhaustion, would, I think, render the patient more, not less, fit to stand the strain of further operative interference; while it would afford the surgeon a valuable opportunity to consider the best way to deal with the tumour, which, as it happened, presented such great difficulty in its removal.

Mr. Fullerton's letter (p. 1513) lets us know that the patient had the alternatives fully explained to him. It seems clear, then, that Mr. Fullerton was prepared to perform cystotomy in this case if the patient so chose. That the patient's choice coincided with Mr. Fullerton's own preference must have been gratifying to him. But all this does not affect the question at issue—namely, the relative values on technical grounds of different operative measures. The surgeon's first consideration must be the patient's life; comfort is secondary.

From the last paragraph of Mr. Fullerton's letter, he seems to prefer prostatectomy, however severe, to suprapubic cystotomy in such cases as this—that is, in cases in which the condition of the circulatory system is so bad as almost to preclude any operation whatever, even a prostatectomy of two or three minutes' duration. Mr. Fullerton's words seem to me so appropriate in this connexion that I cannot do better than repeat them. "I would recommend" him "to reconsider carefully the advisability of performing suprapubic cystotomy in similar cases," and to be "prepared to contemplate the certainty of the persistence of a suprapubic fistula" as possibly preferable to a probably fatal prostatectomy.—I am, etc.,

Middlesbrough, June 21st. ROBERT K. HOWAT.

SPEECH FRIGHT.

SIR,—Akin to "speech fright" is the fear which some feel when called upon to do unusual things.

I am devoted to boating, but invariably feel nervous the first few minutes I am on the water. Reason tells me that there is no more danger at the beginning than at the end of a trip, but common sense does not seem to enter into the condition at all.

I was once in considerable danger off the Cornish coast and experienced no fear, the nervousness went as the danger came. When in a rowing boat the nervousness passes off the moment I begin to work, but, if not rowing, lasts much longer.

Common occupation appears to be the best prophylactic. The late Lord Salisbury had a habit of resting his left elbow on some object when speaking. At his official residence a pile of books was usually put ready at his side; on one occasion these were removed before his speech had been delivered; the noble marquis fidgeted and hesitated in his address, then left his place, reached down the missing volumes and went on with his speech as fluently as ever.

I regard the condition as a nervous disease of the "'phobia" class, but *dare* not attempt to give it a name.—I am, etc.,

London, S.E., June 21st. JOHN ROUND.

SIR,—"Speech fright," "stage fright," and kindred nervous phenomena are extremely interesting subjects for observation. The distress occasioned must have been endured by every one, more or less, at times, and is experienced in variations, not merely at after-dinner and public occasions, but also on the fields of sport, and notably at cricket and golf. Many brilliant golfers are unable to play their usual game at critical stages, "nervousness" apparently paralysing them.

On analysing one's own sensations on such opportunities, speech-making, singing before company, *viva voce* examinations, crucial periods in sports, etc., the first thing one observes at the onset of the "nervousness" is an involuntary holding of the breath or a partially suspended respiration, followed by a quickened heart-beat, at once painfully apparent, a sudden acute tension and confusion of mind, throbbing at the temples, uncertainty of utterance, a series of short spasmodic actions like twitches at the moustache, brushing the forehead, swaying from one leg to the other, and the fluky stroke at cricket and fatal snatch at golf, all of which are quite unusual to the ordinary behaviour and conduct of the individual.

In such a condition immense relief is afforded at the very commencement of the distress by taking, quietly and slowly, three or four full and free inspirations. It is essential that they should not be hurried. The relief is extraordinary; a calmness ensues, a feeling of freedom follows, and a sense of time gained is noted; the mind clears, speech returns, one recovers oneself and acts naturally and comfortably. I think the old hand has perhaps unwittingly learnt the trick. The practised after-dinner orator may be observed to stand quietly, unconcerned, with open mouth, breathing easily and sufficiently before venturing on his remarks. The prima donna may be seen to deliberately fill and refill her ample chest while waiting for the introduction to end, and the crack golfer lounges comfortably up to his ball and takes a quiet breather and survey before he settles down to his shot.

It has been noted by a previous correspondent that women are not embarrassed to the same extent as men in this direction, and it is doubtless due to their easier method of respiration.

Many ordinary physiological explanations suggest themselves to account for the benefit which this simple procedure ensures, and that it is of practical value I have experienced proof time after time.—I am, etc,

Richmond, June 23rd. J. R. JOHNSON.

SIR,—It is to be hoped that the letter from Dr. Sanderson Mellor will arouse the disapproval of medical practitioners. For there are many of us who look for guidance from an authoritative source in a matter of this kind. Has Dr. Mellor had no experience of the abuse of opium or of cocaine? Here are patients in perfect health

—unless pure nervousness is to be considered a disease—being treated by the most potent of drugs.

I know full well that there are many who favour this treatment. It is not very long since a very senior practitioner opened my eyes to this abuse of drugs when he told me how many public speakers and others "required" a dose containing opium. A lady astonished me when she said she took cocaine lozenges, sometimes as many as twenty a day. Each one contained $\frac{1}{20}$ grain of cocaine—1 grain per diem! Speakers are far too numerous at most gatherings; a breakdown followed by a sit-down would often be most welcome and diverting. Not being a speaker, I can only rely on the dicta of others, so note Mr. Haydn Brown's assertion that "one of the most important factors . . . is a thorough grip of subject." Disraeli wrote in *Endymion* that knowledge is the secret of eloquence.

To aid eloquence and to allay nervousness in healthy people by means of drugs must be wrong. If this be not so, then must Molière be right in his satire when he wrote, "Un cordonnier, en faisant des souliers, ne saurait gâter un morceau de cuir qu'il n'en paye les pots cassés; mais ici l'on peut gâter un homme sans qu'il en coûte rien."—I am, etc,

London, W., June 29th. BERNARD E. POTTER.

"THE DOCTOR AS A VICARIOUS PHILANTHROPIST."

SIR,—Let Dr. Gwatkin daily and impudently demand of shoopkeepers food for small boys in serious want, force good tradesmen continually to supply their wares before payment to all and sundry, then leave them to collect the cost; if he has any courage left, dare him to extend his efforts to all hours of the night as well.

Dr. Grey, in the JOURNAL of June 12th, writes that street accidents are rare, and are no trouble or expense to medical men. This is not correct, though it may be true for his practice. Those who write in this strain evidently do not know how some of their medical brethren live or, rather, exist, or of the treatment meted out to them by the community.

The oft-recurring and occasionally bitter letters under this or similar headings shows there is something deeply wrong, and, as Dr. Kerr says, it could easily be remedied. The history of the world proves that few rights have been obtained by the methods hitherto adopted by the medical profession. Perhaps Dr. Gwatkin could induce civilized Governments to stop building *Dreadnoughts*, on the ground that such is lowering to humanity. The profession have exercised it by methods opposed to all common sense, daily expecting recompense which fails, laughed at by all sane men, not respected as much as some members think. Is the result satisfactory?

It is not only the ignorant poor that exploit the profession, but so-called cultured people, from Cabinet Ministers, who have the means of obtaining reliable information, downwards. Allow me to call attention to the recent attitude of the Home Secretary with regard to the difference in the amount of the fees paid to medical men and veterinary surgeons for street accidents in London; consider the speeches of clergymen of the Church of England, of ladies who are members of boards of guardians, when parish doctors ask for an increase in salary; yet how these men are paid, how they are worked, at the risk of being called inhuman, outside their contract, is notorious. Some doctors are treated with callous brutality—if in ignorance, let us try to bring the community to sense by ordinary methods.—I am, etc.,

Margate, June 22nd. J. J. HEMMING.

SIR,—This question of "The Doctor as a Philanthropist" is a very serious one for the profession and the public. Would Dr. Owen Gwatkin kindly tell us how much he has suffered by attending accidents "in the interests of humanity"?

I have a small practice—I mean as regards cash receipts—but by attending an accident recently it cost me in cash £11 trying to get paid for it, and I have not got paid for it yet.

On Saturday a child came to me in the middle of my surgery hours and with patients in the waiting-room. The child said, "Ye've to gyne to the harbour." "To whom?" I asked. "I dinna ken." "Who sent you?" "I dinna ken." "Who is hurt?" "I dinna ken." "Is some one badly hurt?" "I dinna ken." I sent the child away to find out more about it or send some one else. Afterwards I found out that a man had been hurt within a mile of five other doctors; he was within twenty yards of another doctor; he was hurt seven miles from my residence. None of the other doctors were sent for. The man was not attended to; he died within six hours of a fractured spine. I did not refuse to attend the man, but I think I was entitled to know where to go and to whom.

I am meanwhile doing the work of a neighbouring brother practitioner for a fortnight, and yesterday I received a message to "come at once" to see one of his patients six miles distant. I went in pouring rain, and supplied medicine and attended to the man. When I returned home one of my own patients had meanwhile sent for me to a confinement; I attended immediately, but was too late, and my patient informed me that the nurse would manage the case now. I learn now that the man I attended never paid any one, that 30s. stands against him in my own books, and he has never paid me anything, so that I have been "done" for all my trouble and I have also lost £1 1s. for the confinement.

I could give daily examples of such work. The day before yesterday I was asked to attend a case "at once." I went immediately, and cycled eight miles to find that unless a poor woman got a medical note for the school board saying her child was unable to attend school she was to be summoned. I asked the woman if she would have sent for me if she had not been compelled to get a medical note, and she said "No." This, of course, was done for nothing.

One Saturday a man called at my surgery with a child and said, "I wish a note for the school board." I said to the child, "Have you been ill?" "No, sir." "Are you ill?" "No, sir." I examined the child and found nothing wrong, and showed them out without a certificate. I had given them nothing, so I got no pay. The school board meeting was held on Monday, when the man and child were interviewed. The man came back next night (Tuesday) and said his child was ill and in bed; would I attend to it? I looked up my ledger, and found a bill of £2 against him, and nothing ever paid. I said I would attend to the child "at once." I cycled one mile, and saw the child in bed. As I entered the house, the first thing that met my eye was a thin piece of blotting paper and a piece of paper, a bottle of ink and pen lying on the table; I said nothing, but examined the child carefully, and found nothing. I asked the child if it was ill, and it said, "No, sir." I was then requested to sign a note for the school board. I said, even although the board did not get the grant for this child, I could not give a note saying the child was unable to attend school, but I told the parent to send to the neighbouring practitioner's house whose work I was doing along with my own, and that I should leave a note there for them. However, I decided, as I was passing the house again in ten minutes, to leave a note of "good health" personally at the people's house. I found the child up, out of bed and dressed, and sitting at tea. This, I maintain, is work for nothing for the school board. Does Dr. Gwatkin blame me if sometimes I say, No?

I should not like to act harshly, but when it comes to be doing work for nothing for school boards, harbour companies, Government (signing old age pension certificates), and police in street accidents, I think it is our duty to say No! sometimes.

Those cases are true, and have happened during the last week in my small practice. What must it be in a large practice?—I am, etc.,

June 22nd. A HARD-UP PHILANTHROPIST.

MEDICAL EMERGENCY SERVICE.

SIR,—One of the most urgent needs in our large towns is the provision for the *first* attendance of a doctor in all cases of accidents and serious sudden illness of persons who have no family doctor, or are unable to command the service of one. I have proposed something on the following lines:

A Medical Emergency Service. All doctors who are willing to render *first* attendance to be on a list. That the doctors take a week's duty in rotation (probably this would

be one week in six to eight weeks). That this list and dates of attendance be supplied to each of the doctors and also kept at the police station, so that all the police would know to whom emergency cases should be sent. That a scale of fees be adopted and *first* attendance paid from a fund, which I suggest should be raised by voluntary subscriptions. I am sure it would be easy to raise the necessary funds, and the medical profession would be glad to subscribe to such a fund and to do their share of medical work to make it a success. If this were done it would meet a felt need, and also save many unnecessary inquests and votes of censure.—I am, etc.,

Bacup, June 28th. JOHN BROWN, M.D.

MEDICAL TREATMENT OF DUODENAL ULCER.

SIR,—I hope that you allow me to endorse Dr. Hort's statement as to the curability of chronic duodenal ulcer, as my experience entirely coincides with his. During the past year I have treated 33 cases in which the diagnosis of duodenal ulcer could legitimately be made, with only 3 failures. The method of treatment which I adopt is one based upon that of Dr. Hort with modifications of my own. I find that the chief difficulty lies in the preparation of the food, it being much easier to order a patient to take pounded meat than for him to procure it in a form which is appetizing and easy to digest. It is therefore necessary to supply the patient with detailed instructions for the preparation of the different dishes, which he can hand to his cook. A method of preparation which I find to be readily taken is the *soufflé*. This, in its simplest form, consists of boiled chicken, minced, pounded, mixed with white of egg, and steamed in a mould for half an hour. I invariably now include from ½ oz. to 1 oz. of gelatine in the daily food, as I am convinced that it has a distinctly beneficial effect, not only in relieving pain, but in expediting the healing of the ulcer. I always give the patient six feeds a day, at 7 a.m., 10 a.m., 1 p.m., 4 p.m., 7 p.m., and 10 p.m. respectively, and I administer the dose of normal horse serum after the meals at 7 a.m., 1 p.m., and 7 p.m., the other ones being followed by a dose of gelatine.—I am, etc.,

London, W., June 27th. GEORGE HERSCHELL.

THE ASSOCIATION.*

SIR,—The Annual Meeting of the Association is now about to be held, and, if it is to be placed in the same category as most of its predecessors, none of us will be a penny the better for its having taken place. This may seem a somewhat sweeping assertion to make, but, if any one is in a position to contradict it, I should like very much to hear his arguments. As secretary of a Division, I have got to know the workings of the Association pretty well, and it seems to me that, in comparison to the small amount of benefit which the profession gets from the Association, the latter with its Branches and Divisions is about the most cumbrous and useless piece of machinery that could well be devised.

Our Division meets and gravely deliberates upon the various subjects that are sent down periodically from head quarters, the secretary sends the result of our lucubrations to the Branch or back to head quarters, as the case may be, and that is the very last we hear of the matter. Furthermore, the absolute apathy which is displayed by the large majority of the members (80 per cent. of our Division have never during the six years been present at a meeting) is most disheartening to those of us who do turn up. Even in regard to subjects which one would suppose would appeal to the average country practitioner the same indifference is displayed.

The continual holding of meetings without any tangible result is a perfect farce, besides being a waste of time and money.

The British Medical Association might be one of the most powerful professional bodies in existence, which could dictate its own terms to all comers, whereas now we have not so much cohesion as to make us able to force the clubs to raise their subscriptions by one shilling per annum.

The present system of Divisions and Branches has not fulfilled its purpose in the least, and I think the sooner it is abandoned the better.

I should like to know what is the amount of money spent annually just now in sending the various memoranda and circulars to each secretary of a Division, not to mention the bill for printing the same.

Instead of wasting time on trivial subjects which are of little practical importance to any one, let the Association try to devise some means whereby our power may be increased, and we be thereby enabled to bring about many much-needed reforms and abolish abuses the existence of which is detrimental to the best interests of the profession collectively and individually.—I am, etc.,

W. J. CAIE,

Bury St. Edmunds, June 27th. Secretary West Suffolk Division.

TREATMENT OF SCHOOL CHILDREN.

SIR,—I am sorry I did not know when criticizing Dr. Sidney Phillips's letter that the medical inspectors of elementary school children are, as he states, appointed under the title of "school doctors." It seems to me in any case an inappropriate designation for officers whose work is confined to inspection and does not include treatment. I would therefore suggest that, even if this title is used by laymen, it should be avoided by us in discussing this question. Loose use of terms confuses the issue, even when all concerned are keenly anxious to state their case fairly.

It can only, I think, be due to loose use of terms, or loose understanding of terms, either by Dr. Phillips or by me, that my remark about the impossibility of acting as a consultant to a medical inspector who may not treat the children he inspects, should make Dr. Phillips think that my "doctrine" deserves the consideration of the Ethical Committee, and that I am in danger of inhuman conduct. I am not concerned for my own peril in either of these respects, but it would, I think, be well that, for the sake of clear thinking on this matter, Dr. Phillips and I should try and understand each other's ideas of what is meant by "act as a consultant to" another medical man. If I knew what Dr. Phillips understands by this phrase, I could perhaps perceive wherein lies the inhumanity of my "edict." If Dr. Phillips knew what I mean by the phrase, he would perhaps recognize that the "consultative principle" as applied to out-patient departments is neither impracticable, as he states, nor likely to be manipulated in an offensive manner, as he fears. As I feel sure any general practitioner of Dr. Phillips's acquaintance will be able to explain to him the meaning which would commonly be attached to these words by any one in the professions of medicine or law, I will not trespass on your space by endeavouring to define them. I shall rest in hope that Dr. Phillips will come to see that to be unable to consult when there is no one to consult with is a natural incapacity which offends no code of ethics or humanity.—I am, etc.,

June 25th. LAURISTON E. SHAW.

MEDICAL INSPECTION OF SCHOOLS IN SCOTLAND.

The Position of Female Assistant Inspectors.

SIR,—As several Scottish councils are at present seeking assistant medical inspectors and offering lower terms for women than for men, I ask your permission to draw special attention to the fact. Edinburgh City, Fife and Forfarshire, which have all accepted the recognized minimum of £250 per annum for male assistants, offer £200 and £150 respectively for the corresponding female appointments. Several reasons, whose ingenuousness is doubtful, have been publicly given, such as that the work of the female inspector is to be less important, or that if the female medical inspectors are remunerated on the same scale as males, the female teachers will demand like treatment. The fact is that the councillors believe the supply of women to be cheaper than that of men. From the point of view of the profession, the services performed by the men and women are equally incumbent on the councils, and as the prospect of advancement before the assistant is even less for women than for men, it is desirable that every woman should loyally support the contention that

* Previous letters on this subject were published in the BRITISH MEDICAL JOURNAL of May 29th, p. 1331, June 5th, p. 1391, June 19th, p. 1514, and June 26th, p. 1575.

for women, as for men, a whole-time appointment in a service which is almost a drawback for any other department of medical work requires a minimum salary of £250, and that the councils should be made to realize this by receiving no applications for the female assistant inspectorship until the terms are adequate.—I am, etc.,

Dundee, June 30th. R. COCHRANE BUIST, M.D.

Obituary.

DANIEL JOHN CUNNINGHAM, M.D., F.R.S.,

PROFESSOR OF ANATOMY IN THE UNIVERSITY OF EDINBURGH.

[*With Portrait.*]

THE University of Edinburgh, the medical profession, and the scientific world have suffered a profound loss by the death, on Wednesday, June 23rd, of Professor Cunningham at the comparatively early age of 59.

In December last, because of what was then hoped to be only a temporary breakdown of health, he obtained leave of absence. By the end of that month he was at Cairo, where he spent a week, and then proceeded up the Nile in search of sunshine and health. At Luxor he became much better, and was able, despite pain, to find great interest in the temple of Luxor and the ruins of Karnak. From Luxor he went to Assouan, where he met his old friend and former colleague, Lord Roberts. They had been President and Secretary of the Dublin Zoological Gardens together. March was spent at Helouan, where the improvement in his health was not continued. He had a week of severe fever there, but again rallied. He spent April on the Riviera, and came home in the beginning of May, not to return to his university duties, which he loved so well, but to die.

An intimate personal friend, the daughter of a former university colleague, writes: "At many places in the East he met old students, and it was touching to note with what affection, as well as reverence, they regarded him. To them he was not only the great master in his own field of science, but the most lovable of friends. His was a captivating personality. He was the most manly as well as the most gentle of men. Through his eyes, 'the windows of his soul,' just because he was truly great, shone the simplicity of the child. Many men in many lands are the better for having known him."

Dan Cunningham, as his intimate friends called him, was born at Crieff on April 15th, 1850. His father, who was then parish minister there, later became the Principal of St. Mary's College of St. Andrews University, and Moderator of the General Assembly of the Church of Scotland. His mother was a descendant of a brother of Captain John Porteous, of the Porteous Riots in the Grassmarket of Edinburgh. His early education he received at Crieff Academy. At the age of 20 he began the study of medicine in the University of Edinburgh. After a brilliant course, he gained the degrees of M.B., C.M., with first-class honours, in the year 1874. Two years later he secured the degree of M.D. and a gold medal for his thesis on The Anatomy of the Cetacea. For a time he was one of the junior demonstrators of anatomy, under Professor (now Sir William) Turner, in the University of Edinburgh. In 1876 he became Senior or Chief Demonstrator, a post which he held for six years, during four of which he was also Lecturer on Physiology in the Royal Veterinary College. In March, 1882, he was called to Dublin to fill the Chair of Anatomy at the Royal College of Surgeons, from which in October, 1883, he was transferred to occupy a similar position in Trinity College, Dublin. Of the great and beneficial influence which Professor Cunningham exercised in the Dublin schools Professor Dixon and Dr. Gibson say something further on, and the latter describes the interest he took in the Royal Zoological Society of Ireland.

When, in 1903, Sir William Turner succeeded Sir William Muir as Principal of the University of Edinburgh, and *ipso facto* gave up the Professorship of Anatomy, Professor Cunningham was unanimously invited by the Curators of Patronage to succeed him in that chair. The scientific world was at one with Sir William Turner in recommending this course.

Professor Cunningham was an unwearied and prolific writer. He was the acting editor of *The Journal of Anatomy and Physiology*, and contributed many papers to its pages. He published a report on the Marsupialia brought home by H.M.S. *Challenger*, and the *Student's Guide to Dissection*, which he subsequently replaced by the *Manual of Practical Anatomy*, which is now in its third edition. Two of his papers—On the Lumbar Curve in Man and the Apes (1886), and On the Surface Anatomy of the Cerebral Hemispheres (1892)—were selected for publication in connexion with the Cunningham Fund of the Royal Irish Academy, a fund employed for the publication of works which attain a specially high standard of merit. He contributed also to the *Transactions* of the same Academy a memoir on Cornelius Magrath, the Irish Giant: a Research into the Connexion which exists between Giantism and Acromegaly (1891); and to the *Transactions* of the Royal Dublin Society a memoir on the Microcephalic Idiot (1895). In 1902 he gave the third Huxley memorial lecture before the Anthropological Institute, his subject being Right-Handedness and Left-Brainedness, and for this lecture he was presented with a memorial medal. In conjunction with Professor E. H. Bennet he wrote The Topographical Anatomy of Congenital Inguinal Hernia, which was published in 1888. Of the *Textbook of Anatomy*, published in 1902 by the pupils of Sir William Turner, he acted both as editor and joint author. After his appointment to the Edinburgh Chair of Anatomy, and as Dean of the Medical Faculty (in 1905) he naturally wrote less, but he brought out new editions of several of his works, and contributed short articles to the literature of his subject. In 1904 he published *The Evolution of the Graduation Ceremony*, an address which he had given as promoter at the graduation of that year.

Professor Cunningham was an examiner in London University for ten years, in Edinburgh University for eight years, at Cambridge for three years, at Oxford for one year, and at Victoria University for three years. He was also an examiner for the Royal Army Medical and Indian Medical Services for four years. During his life in Ireland he was for eight years Secretary, and later President of the Royal Zoological Society of Ireland, and for four years Secretary and later Vice-President of the Royal Dublin Society. He was President of the Anthropological Section of the British Association at its meeting in Glasgow in 1901, and was Chairman of its Anthropometric Committee; he was at one time also President of the Anatomical Society. He served on the Viceregal Commission appointed in 1900 to inquire into the condition of the inland fisheries of Ireland; on the Royal Commission appointed in the same year to inquire into the care of the sick and wounded during the South African war; and on a War Office Committee which reported on the physical standards required for candidates for commissions and for recruits. More recently he was convener of the committee which looked after the arrangements for the medical equipment of the Territorial Force in the East of Scotland.

Honours fell thick upon him. He held honorary degrees from the universities of Dublin (M.D. and D.Sc.), Oxford (D.C.L.), St. Andrews and Glasgow (LL.D.). He was a Fellow of the Royal College of Surgeons of Ireland, of the Royal College of Surgeons of Edinburgh, of the Royal Societies of London and Edinburgh.

His recreations were angling and cycling, and to a more limited extent golf. He was passionately fond of animals.

Professor Cunningham is survived by his wife (a daughter of the Rev. Andrew Browne, B.A., Minister of Beith, Ayrshire), three sons, and two daughters. One of his sons is a captain in the Indian Medical Service another is a lieutenant in the navy, and the third is a lieutenant in the field artillery. One of his daughters was married last year to Dr. Edwin Bramwell, and a pathetic touch was the birth of her child (a boy) on the morning of her father's funeral.

The funeral service took place at St. Cuthbert's Parish Church, the body being interred in the Dean Cemetery, on June 26th. Professor Taylor, D.D., Secretary of the University Court, officiated, assisted by the Rev. Mr. Davidson, B.D., a brother-in-law of Professor Cunningham. There was a large concourse of students. The Council of the Royal Society of Edinburgh was represented by Professors Crum Brown, Schäfer, and D'Arcy Thompson, Dr. John Sutherland Black and Dr. Cargill G. Knott.

There were also present representatives from the Senatus of the University, the Councils of the Royal Colleges of Physicians and Surgeons of Edinburgh, the General Council of the University, and the Students' Representative Council, as well as many members of the medical profession in Edinburgh and elsewhere. The service at the grave was conducted by Mr. Davidson. The pall-bearers were Mr. A. B. Cunningham and Mr. A. G. Cunningham (sons), Mr. Francis Cunningham (nephew), Dr. Edwin Bramwell (son-in-law), Dr. Myles (brother-in-law), Mr. Patrick Murray (cousin), Sir William Turner, Sir John Batty Tuke, Dr. George A. Gibson, and Professor James Geikie.

A memorial service, under the auspices of the Students' Representative Council, was held in St. Giles's Cathedral on Sunday, June 27th, at 3 p.m., when the Dean of the Faculty of Divinity, the Rev. Professor Patrick, D.D., officiated.

Sir WILLIAM TURNER, K.C.B., F.R.S., has, at our request, written the following personal appreciation of his pupil, friend, and successor:

The writer of this notice became acquainted in 1870 with Dr. Cunningham, when he began the study of medicine in the University of Edinburgh. The skill and neatness of his dissections, his industry, and intelligent appreciation of his work soon attracted attention, which, conjoined with his happy, unselfish disposition, led to the formation of friendship and sympathy between teacher and pupil which have continued throughout his life. He graduated as M.B. and C.M. in 1874, and for some two years after graduation he acted as a young practitioner; but on the offer of a demonstratorship on the anatomical staff of the university, he gave up thoughts of practice and decided to devote himself to teaching and research. When the anatomical department was moved to the new buildings of the medical school in 1880, Cunningham had become principal demonstrator, and took an important part in the removal and in arranging the rooms for purposes of teaching. The experience which he gained at this time was of great value, as, after his appointment in 1883 to the Chair of Anatomy in Trinity College, Dublin, he was called upon to design a new anatomical institute on modern lines. It was during his period of office as demonstrator in Edinburgh that Cunningham gave evidence of the administrative ability, power of organization, general business qualifications, clearness of expression as a teacher, and the possession of the scientific and practical grasp of his subject which have placed him in the first rank of professors of anatomy in the British Islands. On the return of H.M.S. *Challenger*, Sir Wyville Thomson placed in Cunningham's hands the Marsupial animals collected during the voyage. In 1882 he wrote an elaborate report on their anatomy, and as he met a puzzling modification in the arrangement of the muscles of the hand and foot, he extended his inquiries into the myology of these parts of the limbs in the mammalia generally. This memoir established his reputation both as an able descriptive anatomist and as a capable elucidator of difficult morphological problems. The opportunities which he enjoyed in Dublin of watching the animals in the gardens of the Zoological Society and of studying their anatomy after death enabled him during his residence there to make important additions to our knowledge of their structure, more especially that of the anthropoid apes. This naturally led him to a comparison of their structure with that of man and to the investigation of problems in physical anthropology. His memoirs on the lumbar curve in man and apes, and on the anatomy and development of the brain added so greatly to his reputation that when in 1903 Sir William Turner resigned the professorship of anatomy in Edinburgh, Cunningham received a call from the electors to fill the vacant chair, and the wisdom of the choice was acknowledged by the academic world. It was not without some reluctance that Cunningham left his field of work in Dublin, for his powers as a teacher, administrator and investigator had given him a leading position in Trinity College and in the scientific societies in Dublin; the sterling qualities of his nature had endeared him to his colleagues and friends, and the opportunities for study afforded by the Zoological Gardens were a source of great attraction. The claim that Edinburgh had on his services could not, however, be denied; to fill the historic chair of the Monros and of Goodsir appealed to his ambition, and he decided to return to his Alma Mater and carry on the work of the department in which he had gained his first laurels. His colleagues in the University gave him a warm greeting and he was shortly chosen to be the Dean of the Faculty of Medicine; the Council of the Royal Society elected him one of the secretaries; the Royal College of Surgeons appointed him to be a member of its Council; the students recognized him as a most capable teacher, administrator and a wise adviser, just and patient in his relations to them. All the circumstances pointed to a successful and, it was hoped, a long career in his new sphere of duty, and the work of his department was energetically conducted by himself and his demonstrators, both as regards teaching and research. Something more than a year ago signs of failing health began to be seen, and in December last he obtained leave of absence for some months, in the hope that complete rest and change of climate would conduce to its re-establishment. This, however, was not to be, and he returned home in May with but little hope of recovery. The long procession of students, colleagues, professional brethren, and other friends who accompanied his body to the grave on Saturday testified to the estimation in which he was held by those who knew him. Cunningham possessed qualities not often found in combination. His guiding principle was a sense of duty towards both the subject on which he was engaged and the persons with whom he was associated. He was essentially a strong man, firm in purpose and true to his convictions; but associated with his strong nature was a gentleness of character and a power of persuasiveness which attracted all who were brought into contact with him and assisted in overcoming difficulties. Though men might differ from him in opinion when subjects were under discussion, it was impossible to quarrel with one whose language was always temperate, whose honour was unquestioned, and whose conduct, both public and private, was not influenced by self-seeking or a desire for applause. Few go through a life of activity without making enemies, but of Cunningham it may be truly said that he gained the regard and affection of all men.

Professor A. F. DIXON, who succeeded Professor Cunningham in the Chair of Anatomy in Trinity College, Dublin, writes:

Although the seriousness of his illness was recognized, the news of Professor Cunningham's death was unexpected, and came as a great shock to his very many friends in Dublin. We have, indeed, hardly yet realized that we have lost the man who gave the best twenty years of his strenuous and all too short life to the advancement of medical education and scientific research in Ireland, and to the furtherance of so many movements for the development of the country. It is no exaggeration to say that during the last twenty-five years Dublin has seen no more remarkable or striking personality than Cunningham, nor any man who by his genius, energy, and enthusiasm was able to achieve more success for the numerous institutions and movements in which he was interested. Trinity College and its medical school was ever foremost in his thoughts and affection, and owes much to his labour, insight, and care, but the debt of gratitude which Dublin owes to his memory is also largely shared by the Royal Irish Academy, the Royal Dublin Society, the Royal Zoological Society, the Royal Veterinary College, and other scientific bodies. In the counsels of all these Cunningham's was always a welcome and a leading spirit, and the splendid gifts which helped him to carry out such valuable work for the university enabled him here also to overcome difficulties which to so many others have proved insurmountable. His practical methods and enthusiastic manner were irresistible, and were especially valuable in securing for him the co-operation of the younger men among his colleagues, while his courtesy and willingness to hear and to discuss all sides of questions enabled him to disarm criticism. We believe that the secret of Cunningham's success depended in no small degree upon his desire to make the fullest use of existing societies and institutions and to direct their energies into the channels which he believed to be most fruitful. His diplomatic and

practical nature did not lead him to waste his energies or induce opposition by attempting to create new machinery for the advancement of projects which could in any way be obtained through existing organizations. When, however, the establishment of a new institution was necessary, Cunningham's business instinct and foresight ever brought him to the front, and his advice was keenly appreciated and followed with success. The foundation of the Royal Veterinary College was largely due to Cunningham's energy, and its great success to the valuable assistance and advice which he was able to give at its inception. His scientific knowledge of and interest in matters relating to the welfare of Ireland received recognition by his appointment as member of the Royal Commission on Irish Fisheries. It is a remarkable fact that no one took a deeper interest in the early history of the various Irish bodies to which he belonged than did Cunningham. The origin and early history of the medical school of Trinity College, of the Royal Dublin Society, and of the Royal Zoological Society had a fascination for him, and he was wonderfully well informed regarding the men who in former days occupied prominent positions in all of these. Many Irishmen first learnt from him to be really proud of the history of their school of medicine and of their great scientific societies and institutions. His students and colleagues everywhere regarded him as one of themselves, and they never for one moment doubted that with him Ireland came first, and that her interests were his also.

For Dublin University Cunningham had the deepest affection, and his work in its school of medicine gained the confidence and admiration of his students and colleagues alike. A great and inspiring teacher, no detail was too trivial and no labour too arduous where the interests of his students were concerned. The example of his enthusiasm, industry, and untiring energy is a lasting memory in the minds of many generations of students. His knowledge and advice were ever freely at the disposal of all who desired to consult him, and those who went to him received counsel, encouragement, and assistance for the carrying out of their ideas such as few men have it in their power to give. His approbation and approval were generously given and most highly appreciated. We doubt if any man ever exercised a more powerful influence over his students than Cunningham did, and the keen interest which he took in their work and pleasures was repaid by an admiration, esteem, and affection such as are rarely bestowed upon any teacher.

Cunningham came to Trinity College at a critical time in the history of her school of medicine. Thanks mainly to the energy of the late Dr. Samuel Haughton, the college authorities were waking up to the necessity of providing new lecture rooms, laboratories, and equipment, and Cunningham in his earlier years at Trinity College had the satisfaction of seeing not only his own department practically rebuilt, but also the other departments of the main medical block completed. At this time he was brought into very close association with Haughton, and a warm friendship grew up between them. In later years Cunningham often spoke with the greatest admiration and affection of Haughton and of the services which he rendered to the medical school. On the arts side of the college also Cunningham had many friends, notably, Dr. Salmon, the late Provost; and the trust and sincere regard in which he was held by the Provost and other members of the university was well illustrated in 1892 when Trinity College celebrated its tercentenary. No one who was intimately connected with the arrangements for this festival could fail to recognize how much of its great success was due to the energy, genius, and enthusiasm of Cunningham.

When he was called away from Dublin to Edinburgh his affection for Ireland and Trinity College did not wane, and his interest and regard for Trinity College were most strikingly demonstrated a few years ago by his organization of the remarkable protest which the universities of Scotland presented to the Government against a scheme of Irish university reform put forward by Mr. Bryce. No one recognized more clearly than he did that this scheme if it became law would end in the destruction of Dublin University, and in the hour of its trial Trinity College had no stronger or more active friend than Cunningham.

Naturally Trinity College is immensely proud of Cunningham's original work. The conscientious care which he bestowed upon all that he published was well recognized, and observations and statements made by him were always received with the greatest confidence. To mention but a few of the important memoirs which he published—his papers on the cerebrum, on the lumbar curve, on the microcephalic brain, and on the Irish giant, were recognized as splendid examples of what original memoirs should be. No one could fail to be impressed with the high position which he claimed for anatomical science, and indeed his power of impressing all with whom he had to do, with the importance and dignity of original biological investigation was one of his chief characteristics and charms.

Cunningham's *Manual of Practical Anatomy* is perhaps the work which is most typical of its author. It was written to teach, and every illustration and every sentence was carefully and continually viewed and criticized from the standpoint of the student, for whom it was intended. In his memoirs also a similar care was exercised, and hence his meaning is never vague or uncertain, and the reader feels when he reaches the end that there is little more that can be said on the subject.

His influence will long survive in Trinity College, and his memory will be ever cherished in the old school of medicine for which he so cheerfully laboured and in which he held so honourable a position.

Professor ARTHUR THOMSON, of Oxford, writes:

In attempting to comply with your request, I feel words fail me to do justice to the man; to know him was to love him, for nobler man never lived than Daniel Cunningham. The intensity of our sorrow makes it all the harder to realize our loss; to feel that we shall never see that winning face of his again, never hear his cheery voice, or listen to his kindly words of encouragement and advice, fills those of us who were his friends with a sadness for which I can find no expression. Of his abilities as an anatomist, it is unnecessary for me to speak. Are they not written large in the annals of science? It is rather of the Cunningham as I knew him that I would write—of the brave, good man he was; of the friend ever helpful and kind. I am reminded of an incident which, now that I look back on it, seems to emphasize in a striking way those qualities. A girl, long left an orphan, was staying with us when Cunningham paid us a visit. After he had left and we were talking of him, she said, with a sincerity which came from the heart: "How dearly I would have loved to have had Professor Cunningham for a father!" Could any tribute be more genuine or generous?

It is now some thirty-four years since I first met Cunningham. Then the senior demonstrator in the University of Edinburgh, it was part of his duty to receive the junior students and initiate them into the mysteries of the dissecting room. I remember the occasion well. I was told I would have to be examined on the "bones," and was directed when ready to report myself to another member of the staff. Not altogether impressed with the personality of that assistant, I decided to manœuvre in such a way that Cunningham himself should be my examiner, for somehow it seemed to me he was more likely to be sympathetic than the gentleman I had just interviewed. That meeting was the commencement of a friendship which has lasted ever since. When in after years I joined the anatomical staff it was Cunningham who was ever ready to help, his was the example we all felt we should like to follow, and I can recall now with pleasure the many hours of overtime we spent together in getting the new department ready for occupation.

When in 1885 I left Edinburgh to come to Oxford it was Cunningham who enabled me to make a start; and a happier six weeks I never enjoyed than those I spent with him at Trinity College, Dublin, getting ready a series of lecture specimens for my new department. It was there I learned more of the man and his ways, how he aided the weak and championed the cause of the oppressed. I can remember an instance in which he helped one of his assistants on a piece of research. Again and again the paper was brought to him but failed to satisfy the professor; the substance was good but the facts were presented in an unconvincing way. In the kindness of his

heart Cunningham evidently felt that something must be done; so one night, though overburdened with work of his own, he sat on till the light was in the east, and entirely rewrote the paper. The assistant prospered and achieved success. He, too, is dead, else I feel he would have been the first to have expressed his indebtedness to his old master. These are but a few of the incidents I can recall, but they reveal more of the character of the man than can be expressed in words. I never heard him speak an unkind word of any one. At times there were those who took advantage of his amiability; more than once I have urged him to adopt firmer measures with them, but Dan was always ready with excuses for their behaviour, and never to my knowledge let resentment lurk in his heart. Possibly it was the more excellent way, but this at least I can say, that it was such traits as these that endeared him to his friends, and left him without an enemy.—And now he is gone, and we can but linger on his memory.

Dr. C. J. Patten, Professor of Anatomy in the University of Sheffield, writes:

Those of us who have had the privilege of working with the late Professor Cunningham, and of obtaining thereby his guidance and valuable advice, must indeed deeply mourn our irreparable loss. Acting as his assistant for four years in the Anatomical School of Trinity College, Dublin, opportunities were afforded me of becoming intimately acquainted with his grand and resolute character. In the development of the Anatomy School, which he undoubtedly entirely remodelled, obstacles were constantly cropping up, and the energy and zeal with which these were grappled often led me to wonder how time could be made out for the voluminous literary work which he accomplished. But the outstanding feature in the character of my much revered master and teacher, a character which enabled him to win the hearts of so many of the younger men, was his extraordinarily strong desire to encourage even the weakest and most desultory worker to persevere; but for his kindly aid many workers, not only in the field of anatomy but in many other branches of learning, would have failed to reap the harvests they did. Space does not here allow that I should cite many of the impressive and oft quaint sayings which came from Professor Cunningham at social gatherings; one, however, in conclusion I may give. At the Geneva Anatomical Conference in 1905, during luncheon, the conversation turned on the influence of the older anatomists. Professor Cunningham's love and deep respect for Goodsir and Sir William Turner was expressed in the words: "Both these men seem to permeate my very being, and to exude even through the very tips of my fingers." We his pupils and fellow-workers cannot fail to be strongly imbued by his delightful personality and remarkable influencing power.

A schoolfellow (Dr. Roderick Maclaren of Carlisle) writes:

Some reminiscences of his early days may interest his many friends. His father at the time we were boys was parish minister of Crieff, then a very quiet country town, different from the popular summer resort which it has since become. Education there in the late Fifties was not satisfactory, so six fathers joined together and engaged a teacher. The school consisted of twelve boys and one girl. Dan Cunningham was one of the youngest of these. He was a quiet, rather reserved boy, certainly not the brightest of the class. He gave no special promise of becoming the fine intellectual man into which he developed. Physically he was rather short and sturdy. He had one very marked quality, that is, grit. Most of us wore kilts; it was then a common dress for Scottish schoolboys. Falls on the knees generally resulted in a skin scrape of a very painful kind, which few boys could bear without some show, but Dan never whimpered. It was known among us that nothing could make him cry. His punishments he took silently, whether they were inflicted by authority or by the older boys for the purpose of keeping up due subjection and discipline in the younger. The school lasted three years; it had two teachers, one after the other. It was then discontinued, as the well-known Morrison's Academy, a foundation school, was opened. Some of the oldest boys were fit to learn occupations, and the others were transferred to this academy. It is an evidence of the frugal ways of the men of the place and period that the teacher's salary was £60 per annum. They were both good scholars and men of ability; they not only lived comfortably on this, but were able to afford good holidays. I believe that after his first student year Professor Cunningham supported himself by extra work. The school was a quiet, working little community. Of systematic, organized games we had none, but we had lots of play of a kind, and much open-air exercise. We ran and jumped, played rounders, hockey, and a crude kind of cricket; and, moreover, we went long walks on the hills and moors, and we fished. This has not proved a bad preparation for life. The position Professor Cunningham attained has been the most distinguished, but the others have done well. With him the effects of his early training are traceable through his subsequent career.

Dr. G. A. Gibson, of Edinburgh, writes:

A sad chapter opened in the university annals when it began to be whispered abroad that the beloved Professor of Anatomy was lying sore stricken by a serious malady, and the dark days through which his friends passed were only brightened by constant tokens of the affectionate reverence of his pupils and the unbounded admiration of all who knew him.

It is well nigh forty years since he entered the portals of the university, after three or four years of thorough business training, invaluable to himself and others in later years, and he at once made his mark as an undergraduate. Although we went to college at the same time, it was not until two years later that we first met, for, lingering somewhat longer in the fields of classical learning and physical science, my own medical studies began two years later than his. He had already been marked out as the most distinguished man of his year when we first met in 1872. Upon our contemporaries he wielded unbounded influence; little wonder that it was so. Throwing himself whole-heartedly into the immediate object of our lives—the attainment of knowledge—he showed to every one the example of a strenuous life. Throughout the whole of his student days he was never satisfied until he had got down to the solid rock of fact. Absolute truthfulness and fearless rectitude were the great characteristics of his mind from his earliest years. These essential features were, however, accompanied by a geniality of nature and a graciousness of manner which rendered him the admiration of his fellow-students. To one and all of us he was ever considerate and helpful; the acknowledged leader in our youthful discussions, he held that position almost as much by thoughtful tact and generous sympathy as by intellectual eminence and personal character. In a word, he exhibited a wonderful combination of gifts of heart and head. To myself personally his position was a matter of peculiar pleasure; the son of Glendevon was proud of the distinction which the son of Strathearn had won for our fair county.

In all his work of later years the same characteristics were in evidence. Following, as we all must, the methods of modern scientific philosophy, he would never brook an attempt to deflect, even by a hair's breadth, any fact so as to suit a hypothesis; if any suggested explanation failed to meet the phenomena, it was inexorably put aside. He was in consequence often called upon to stand by and witness, it may have been regretfully, but always unflinchingly, what Huxley terms "the great tragedy of Science—the slaying of a beautiful hypothesis by an ugly fact." In the long series of valuable monographs, articles, and papers which flowed continuously from him for more than thirty years, as well as in the systematic treatises which he published from time to time, his exact methods of work were abundantly manifested. Each one is a model of scientific precision as well as of graceful diction. They all bear the impress of search for truthful interpretations of natural appearances and are examples of the conception:

Nunquam aliud natura, aliud sapientia dicit.

There is no need in this place to dwell upon them; they have been referred to in the preceding sketch of his life. It may, however, be permitted to me to express the hope that his many scattered works will be collected as a permanent memorial of his labours.

As a teacher, it may be said without fear of contradiction that thousands owe their inspiration to him. From

1876, when he became Senior Demonstrator of Anatomy under Sir William Turner, until the end he was one of the most stimulating and interesting instructors. This was not merely by the example of his desire for truth, and of the necessity for strenuous exertion to reach it, but by the never-failing sympathy which he showed with every one who came into his hands. Over the highest type of mind amongst his pupils he exercised a fascinating sway in leading them in their attempts to lift the curtain which so often veils the origin of natural phenomena, while even those who were careless in regard to the great operations of Nature were stimulated to more earnest efforts to attain at least some elements of knowledge. He was fertile in suggestions of original work, and unwearied in assisting other labourers in the most diverse fields of investigation.

His influence was immense in the councils of two great universities. He was but 33 years old when he was elected to the Chair of Anatomy in Trinity College, Dublin, yet in a short space of time he became one of the prime movers in shaping its course, and moulding its destiny. He not merely reorganized his own department, and rendered it one of the most thoroughly equipped in the United Kingdom, but he was the source from which most of the schemes of scientific progress took their origin. In his work for the good of the University of Dublin, he won the boundless admiration of George Salmon and Samuel Haughton, who heartily supported him in his untiring efforts on behalf of the school of his adoption. It was undoubtedly with sincere regret that he felt bound, when the time came, to sever his connexion with Trinity College, and nothing but an overwhelming sense of duty to his old Alma Mater led him to accept the unanimous summons to Edinburgh. It is right to mention that he never ceased to look back lovingly upon the days which he spent in Trinity College, and to recall the readiness with which he was always delighted to place his services at the disposal of Dublin. During the discussions which followed the introduction of Mr. Birrell's first abortive measure he was one of the most influential leaders in the movement against that hapless attempt. After his return to Edinburgh as successor to our old friend and teacher, Sir William Turner, he again showed the same tireless activity and unstinted devotion for the prosperity of the university, and the welfare of all connected with it. Two aims in particular were ever before him—to widen the scope of teaching, and to increase the number of the teachers; striving after these objects he regarded it as his duty to attempt, as far as possible, to bring about an approximation between the spheres of the university professors and the external lecturers. Many difficulties beset him in those enlightened efforts, but with beautiful patience, gentle tactfulness, and sympathetic consideration, he gradually won his way towards the goal he so much desired.

In the learned societies he undertook his full share of the burden of business management, as well as in the pleasure of scientific contribution. Two of these bodies owe more to him than they can tell, although they have already repeatedly testified their appreciation of his services in the most generous fashion. The Royal Zoological Society of Ireland furnished for many years his favourite occupation; for a long period he was its indefatigable Secretary, and latterly its popular President. The care of the beautiful gardens in Dublin was to him a labour of love, and he was able to find scope for that love of animals which throughout his whole life was a passion with him. The Royal Dublin Society, of which he was successively Honorary Secretary and Vice-President, also groans under a debt of obligation to him for the manner in which he conducted its affairs.

After his return to Edinburgh, he became one of the secretaries of the Royal Society of his city, and not merely contributed papers of great importance to the *Transactions* and *Proceedings*, but took a most important part in the recent negotiations with the authorities when that learned body obtained its new seat.

A great deal of his time was devoted to matters intimately concerned with the public weal. The establishment of the Veterinary College in Dublin owes much to his inspiration and guidance. The inquiry into the Irish Fisheries occupied his energies for a considerable time, while the South African Commission to inquire into the care of the sick and wounded, and the War Office Committee to report on the physical standards required for the army, received much help from his skilful experience. More recently he played a most important part in assisting the establishment of the Territorial Army in Scotland by taking the lead in the formation of the hospital staffs, both as regards medical officers and nursing sisters. It may further be added that the recent development of post-graduate courses again brought his high administrative qualifications into marked relief. In dealing with all public questions his wonderful personality never failed to exert a powerful influence for good. Possessed of undeviating rectitude of intention and unfailing steadfastness of purpose, he could not fail to bring great weight to bear upon the questions with which he was occupied, and it was always felt that the opinions which he expressed were the result of conscientious reflection and deliberate conviction. In the discussions in which he bore so important a part he never made an enemy, for his own honesty of purpose would not allow him, even for a moment, to suspect the motives of any one with whose views he might be in conflict, while the simplicity of his nature and the geniality of his presence averted all that savoured of acerbity or bitterness.

To those who were connected with him by the ties of family and the bonds of friendship the loss we have sustained is irreparable, but we are all enabled, in glancing back through the vista of years, to survey a life of high purpose and of remarkable achievement, unmarred by any departure from the most perfect characteristics of the highest manhood. We fondly looked forward to the gradual ripening of a serene old age in which we should for many years find the help and countenance of the wise counsellor and the faithful friend. There seemed every reason to expect that his life,

> Rooted in duty, and thro' long calm years
> Bearing its load of healthful energies,

would have continued to exercise its beneficent influence for a couple of decades. We know that he had many schemes for original investigation and public service in his mind, but all his intentions and our hopes have been cast to the winds by the sore stroke which has befallen us. The loss which has just been sustained by university circles and by modern science can only be regarded as an unmitigated calamity. To all of us, his friends and colleagues, it has brought a painful sense of desolation; with those who stood to him in a yet nearer and dearer connexion we have the most profound sympathy.

DR. WILLIAM JOSEPH COLLINS, of Wilderspool Causeway and Ryland Road, Warrington, died on June 19th, at the early age of 39; the cause of death was pneumonia. Dr. Collins, who was born in the Curragh Camp in Ireland, received his medical education at Queen's College, Cork, and at the school of the Royal College of Surgeons of Edinburgh, and in 1894 he received the licences of the Royal Colleges of Edinburgh and of the Faculty of Physicians and Surgeons of Glasgow. He had not been very many years in Warrington, but being a genial, active man the time was quite long enough for him to have won for himself a distinct place in the esteem of his colleagues and in social and professional circles. Before settling down in Warrington he had been for some time abroad, and had served as a civil surgeon in the South African war, in the early part of which he was severely wounded. He took much interest in ambulance work, held a commission in the 4th Battalion of the South Lancashire Regiment, and was Honorary Surgeon to the local branch of the St. John Ambulance Brigade. He was also a prominent Mason, and was holding office as Worshipful Master of the Birkenhead Lodge at the time of his death. His funeral was attended by a large number of medical men and by representatives of the Warrington Medico-Ethical Society and the Warrington Division of the British Medical Association, of both of which he was a member. His coffin was borne to the graveside by a detachment of the battalion to which he belonged. Nearly all the officers of the corps were present, as also a large number of Masons and delegates from the St. John Ambulance Brigade and the friendly societies whose medical officer he had been. Dr. Collins was married, and is survived by his wife.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

EASTER TERM EXAMINATION.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., PART I (*Chemistry and Physics*).—M. L. Atkinson, H. Bartlett, P. R. Boswell, C. W. Bower, H. F. Brice-Smith, M. Chadwick, V. M. Coates, G. R. E. Colquhoun, L. P. Costobadie, D. D. Evans, L. H. B. Evans, B. J. L. Fayle, L. A. Graham, G. L. Grant, J. Hardy. R. J. Hearn, J. H. Jordan, W. H. Livens, O. C. McCaw, J. B. McFarland, F. W. Maunsell, S. H. Miles, H. L. Milsom, G. Miskin, H. R. Pollock, G. D Read, A. P. Saint, C. H. Savory, J. W. Sewill, A. G. Shera, R. P. A. Starkie, J. R. Stoddart, R. Stott, A. B. Uloth, D. C. L. Vey, G. C. Wells-Cole.

FIRST M.B., PART II (*Elementary Biology*).—E. H. R. Altounyan, A. L. Anthony, L. W. Batten, M. W. K. Bird, P. R. Boswell, E. J. Bradley, C. C. Brewis, H. F. Brice-Smith, W. E. H. Bull, B. Burnside, G. D'R. Carr, M. Chadwick, R. H. Clarke, G. R. E. Colquhoun, L. P. Costobadie, G. M. Cowper, D. Crellin, H. L. Cronk, E. C. Cunningham, C. D. Day, C. S. Dobson, H. Dunkerley, A. T. Edwards, D. D. Evans, L. H. B. Evans, J. M. Evatt, B. J. L. Fayle, L. S. Fry, E. A. Gibb, C. L. Gimblett, G. L. Grant, R. Hargreaves, R. J. Hearn, J. H. Jordan, S. D. Kilner, A. A. Lees, W. H. Livens, W. A H. Lowry, W. M. Lupton, F. W. Maunsell, S. H. Miles, G. Miskin, C. C. Okell, G. Y. Oliver, H. B. Padwick, J. S. Pooley, G. D. Read, J. R. Rees, A. P. Saint, R. P. A. Starkie, R. Stott, M. Tin, E. W. Todd, D. C. C. Vey, T. T. B. Watson, G. H. Wells-Cole, A. M. Wheeler, H. G. Wiltshire.

SECOND M.B. (*Anatomy and Physiology*).—A. B. Appleton, T. E. Banister, G. M. Chapman, S. S Crosse, J. H. Cumming, H. J. M. Cursetjee, G. E. Dyas, C. M. Forster, T. L. Hardy, G. D Jameson, M. MacGregor, E. G. Martin, R. W. Meller. O. G. Morgan, H. J. S. Morton, W. New, F. C. Newman, A. B. Paul, H. S. Reed, L. T. Rutherford, H. J. S. Shields, W. J D. Smyth, V. F. Soothill, W. J. F. Symons, E. S. Taylor, W. F. Thompson, J. W. Tonks, H. A. Williams.

FINAL M.B., PART I.—F. S. Adams, W. B. G. Argus, H. W. Barnes, J. D. Barris, A. W. Bourne, R. Ellis, C. L. Forde, A. H. Gosse, E. F. W. Grellier, A. E. Herman, W. L. Johnson, J. L. Joyce, I. W. Joynt, H. McLean, A. B. Pavey-Smith, A. C. Roxburgh, W. Shipton, G. Sparrow, W. A. Stokes, F. S. Tinker, J. van Schalkwijk, F. H. Watson, A. J. Waugh, Ll. M. Weeks, T. A. Weston.

FINAL M.B., PART II (*Surgery, Midwifery, and Medicine*).—F. R. Armitage, Pemb.; R. R. Armstrong, Trin.; M. W. Baker, Joh.; A. Barker, Trin.; J. P. Buckley, Trin.; F. G. Caley, Pemb.; A. E. Carver, Cai.; A. F. Comyn, Pemb.; K. Comyn, H. Selw.; R. Cox, Cai.; A. J. W. Cunningham, Trin.; H. E. T. Dawes, Joh.; B. Day, Cai.; P. G. Fildes, Trin.; A. H. Habgood, Jes.; R. E. V. Hale, Cai.: A. Hamilton, Christ's; W. Harmens, Trin.; C. B. Heald, Cai.; E. H. V. Hodge, Cla.; C. C. Holman, Cai.; N. W. Jenkin, Christ's; F. H. Lester, Pemb.; R. H. Mawhood, Trin.; L. B. Perry, Queen's; A. V. Poyser, Magd.; F. A. Roper, Trin.; A. L. Sachs, Pemb.; F. S. Scales, Jes.; C. F. Searle, Pemb.; E. T. Shann, Cai.; H. E. S. Stiven, Trin.; L. B. C. Trotter, Cla.; G. W. Twigg, Cai.; G. B. Wainwright, Trin.; G. Walker, Trin.; J. Walker, Cla.; B. Wallis, Trin.; J. N. Wheeler, Christ's.

UNIVERSITY OF LONDON.

KING'S COLLEGE.

PROFESSOR ERNEST W. WHITE, M.B.Lond., late Resident Physician and Superintendent, City of London Asylum (1887-1905), has been elected Emeritus Professor on retiring after twenty years' tenure of the Chair of Psychological Medicine.

UNIVERSITY OF SHEFFIELD.

THE Council of the university, at its last meeting, appointed Mr. Arthur Connell, F.R.C.S.E., to the Lectureship in Practical Surgery, in succession to Dr. George Wilkinson.

TRINITY COLLEGE, DUBLIN.

THE following candidates have been approved at the examinations indicated:

INTERMEDIATE MEDICAL, PART I.—*J. Colgan, *J. M. S. Gericke, F. B. M'Carter, Eileen Hewitt, H. T. Bates, R. A. Flood, J. N. Armstrong, Georgina Revington, R. G. Ball, Dorothy K. Milne, W. E. Fetherstonhaugh, E. F. O'Connor, J. H. Counihan, J. H. Powell, A. P. Draper, H. G. Trayer, R. H. C. Lyons, C. Rutherford, W. Frier, O. V. Burrows, J. H. Grove-White, R. L. Grandy, A. C. Redelinghuys, H. L. Blackley, H. E. Williams, F. A. Burke.

FINAL, PART II (*Surgery*).—*T. A. Hughes, *R. T. St. J. Brooks, *D. Duff, *E. J. Powell, J. D. Kernan, G. E. Craig, E. B. Bate, F. R. Sayers, D. J. Miller, F. G. Anderson, C. G. S. Baronsfeather, J. P. S. Dunn, W. R. Allen, D. J. Stokes.

* Passed on high marks.

The *Purser Medal* in Institutes of Medicine has been awarded to J. M. S. Gericke; the Medical *Travelling Prize* and Banks Medal to A. Stals, and the *Banks Prize* to J. L. Phibbs. Mr. J. Singleton Darling has been approved for the Mastership in Surgery, and Mr. E. S. Friel for the Mastership in Dental cience.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects ndicated:

SURGERY.—*† E. W. Archer, *J. Bramley-Moore, *J. H. Clarke, *†P. N. Panton, *†H. O. West

MEDICINE.—*†E. M. Adam, *†E. W. Archer, L. Ettinger, *†J. A. Koch, *S. H. Scott, *†H. O. West.

FORENSIC MEDICINE.—E. M. Adam, E. W. Archer, J. M. Burke, J. H. Clarke, H. O. West.

MIDWIFERY.—E. W. Archer, R. J. Cyriax, G. Holmes, H. O. West.

The diploma of the society has been granted to

E. M. Adam, E. W. Archer, J. Bramley-Moore, J. H. Clarke, L. Ettinger, J. A. Koch, P. N. Panton, and H. O. West.

* Section I. † Section II.

Medico-Legal.

CONDITIONS OF SALE OF PRACTICE.

CTESIPHORE.—We have read the agreement, and do not find anything in the penal clause to prevent the vendor seeing any of his old patients at his new home, provided that it is situated outside the defined limits. The prohibition seems to apply solely to a locality, not to persons.

MEDICAL ATTENDANCE WITHOUT FEES.

AN inquiry was held at Shotley Bridge on June 19th into the circumstances attending the death of a child some few hours after the birth, no medical man being in attendance. The child was shown to have died from congenital heart disease, and a question was raised as to whether a medical man who had been asked to attend the confinement was in any wise to blame for declining to do so. Three or four days before the birth of the child, which was illegitimate, the father sent a note to the medical man asking if he would attend if need be. He replied declining to do so. At the last moment the father sent for another medical man, who turned out to be ill and unable to attend, while his assistant was absent. There had previously been some talk as to the father, who was a miner, joining the club of the medical man whom he first asked to attend the confinement, but he had never done so, although a collector had been sent to receive his subscription. In summing up, the coroner pointed out that the medical man in question was quite justified in the course he had taken; a doctor had a perfect right to be remunerated for his services, and the father was to blame for not making arrangements properly. On any future occasion he must take care to do so. The jury returned a verdict of death through natural causes, and likewise held the medical man blameless.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee.

SUPERSESSION.

J. F. B. writes: The wife of a coachman near by sought my advice recently for uterine haemorrhage. She totally disregarded my order to remain in bed. She became faint, after visiting me, on her return home, when her husband was ordered by his master to summon the house-doctor, who at once took my patient under his care and has continued his attendance upon her without in any way communicating with me. May I ask whether such behaviour on the part of this house-doctor would be considered strictly in accordance with the ethics of the profession?

*** Our correspondent explains that by "house-doctor" he means the medical man ordinarily in attendance upon the employer's family. With regard to the question submitted to us, we think that the "house-doctor" should not have assumed charge of the case if he was aware that any one else was already in attendance.

Public Health

AND

POOR LAW MEDICAL SERVICES.

REMUNERATION OF DEPUTY ACTING PERIODICALLY.

G. H. W. does not give details as to the conditions on which he would require his deputy to act for him periodically. A sum equal to two-thirds of the aggregate remuneration received by himself may be suggested as a near approach to proper payment for the assistance rendered.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

ANCIENT HOSPITALS.

V. J. D. writes that it is sometimes stated in pulpits that the hospital system is the direct outcome of Christianity, and asks if there be not evidence of hospitals in pre-Christian times. Were there not hospitals in the great centres of Greek and Roman civilization?

*** Our correspondent will find a full answer to his question in an article entitled "The Evolution of the Hospital," which appeared in the BRITISH MEDICAL JOURNAL of June 20th, 1908, p. 1486. Long before the Christian era there were hospitals in Mexico and in India. There were also sanctuaries in ancient Greece with medical staffs attached to them, and sometimes maintained by the State, which really deserved the name of hospitals. In ancient Rome, in the later days of the Republic and in the early days of the Empire, there seems to have been a kind of dispensary system, but there is no record of the foundation of hospitals for the sick before the fourth century.

TREATMENT OF INHERITED SYPHILIS.

CHIRURGEON writes: The erupting permanent incisors in a boy of 8 show unmistakably the notched characteristics of syphilis. Will the administration of mercury have a good effect? What is the best mode of treatment so as to conceal the real reason for the drugging from the mother?

*** "Chirurgeon's" first query is somewhat indefinite. The administration of mercury could have no effect upon either the erupting or later teeth. It is well known, indeed, that an acknowledged authority ascribes the condition of the permanent teeth to mercury administered during infancy. On the point as to whether it should be administered for the condition of which the teeth are an indication authorities would differ. Whilst some would consider the condition of the teeth alone sufficient justification for the drug, others would withhold it until the appearance of other syphilitic manifestations, such as interstitial keratitis, etc. Some guidance might be found in a knowledge of the length and thoroughness of the mercurial treatment undergone during infancy. With regard to his second query, we know of no one mode of administration that has any advantages over others in the way of concealing matters from the mother. The shortest course of mercurial treatment is that by muscular injection; but, before permitting it, most mothers would require very definite information as to why it was given. If "Chirurgeon" should decide on a mercurial course for his patient, it might possibly satisfy the mother to tell her that experience teaches that such a condition of the teeth is often followed by temporary eye and other troubles which might be warded off or modified by timely and prolonged treatment, without necessarily entering into the subject of the nature of the complaint, or that of the drug administered. There is, we believe, a growing preference for atoxyl over mercury in the treatment of interstitial keratitis.

SPIROCHAETE asks to be recommended the best authority upon the inheritance of syphilis, and adds: I wish to know what is the period during which a woman may retain the poison of syphilis in a transmissible state. If untreated, there being no manifestations but occasional laryngitis for a period of nine years, would the disease be transmitted to offspring?

*** The best book on the inheritance of syphilis is Matzenauer's *Die Vererbung der Syphilis*, reviewed in the BRITISH MEDICAL JOURNAL a few years ago. It is a most exhaustive and critical review of the whole subject; and, though written before the discovery of the parasite originally named *Spirochaeta pallida*, but now called *Treponema pallidum*, subsequent work has helped to confirm views expressed—namely, tha syphilis in the fetus and newborn (so-called hereditary or congenital syphilis) is of maternal origin. Women giving birth to syphilitic children, though presenting no symptoms of syphilis at the time, have been found in many cases to react to the recently-devised Wassermann test, a further proof of the well-known fact that tertiary syphilitic symptoms may develop in women in whom no history of syphilis can be obtained and confirming Colles's law. The evidence points to the fact that syphilis is not, strictly speaking, hereditary, that is, in the biological sense. It is possible that the woman referred to may give birth to a syphilitic child, by infecting it *in utero*, and it would be well in order to try to avoid this to submit her to a course of *mercurial* treatment before impregnation takes place, followed up by a *mercurial* course during pregnancy. As the patient suffers from laryngitis at times, potassium iodide should *not* be exhibited. Mercury is the only specific remedy for syphilis in all its stages. Our correspondent will also find references to this matter in vol. viii, 1908, of *Reports of the Society for the Study of Disease in Children;* page 62, Inherited Syphilis, by R. Clement Lucas; and page 74, Inherited Syphilis, by G. Pernet, the latter with references to some of the literature, English and foreign.

AMBULANCE LECTURES.

A. C. B. R. writes: In a small town a committee was formed to organize a course of lectures on ambulance work, the county council through the school board promising a grant of £10 towards the expenses of the objects in view. The committee asked me if I would, for a fee of £5, give this course of lectures to a class of young men and young women, nominally ten lectures, but practically twelve, as the young women had to get two lectures on sick nursing apart from the men, who were to get ten lectures. The district nurse was to be asked to give a course of lectures on sick nursing, for which she was to be paid at the rate of 10s. a lecture. I expressed the opinion to the committee that if public lectures on sick nursing were to be given at the public expense they should be given by a qualified physician and not by the district nurse, who is not allowed by the rules of her engagement to attend on patients independently of the medical practitioners in the town. My expression of this view caused considerable friction between the committee and myself. I shall be obliged if you will give your opinion on the point raised, and say if I were right or wrong in the view I took and communicated to the committee.

*** Our correspondent is quite right in his contention that the lectures referred to in his letter should not be given by the district nurse, and it becomes a question whether he should be associated with what is, to all intents and purposes, an unqualified lecturer. Did the nurse in question hold a diploma or certificate in sanitation or public health, as given by the Royal Sanitary Institute, the case might be somewhat different, as these diplomates are recognized as lecturers by the educational authorities. Our correspondent might communicate with the central authority, for if the nurse is one of the Queen's Nurses, possibly the committee might take action.

ANSWERS.

ELECTROLYSIS FOR HYPERTRICHOSIS.

B. A. Z.—The treatment of superfluous hairs by electrolysis is part of a dermatologist's work. As to cost, all depends on the kind of case. The best way is to consult a competent dermatologist, who will be able to judge *de visu* of time required and approximate cost.

SOME SECRET REMEDIES.

J. H. W. L.—Lantyne powders manufactured at Leith, and described as an "effective cure for rheumatism," have been examined qualitatively; they appear to consist of guaiacum resin and sulphur, with a vegetable powder showing no characteristic properties. No evidence of the presence of salicylic acid, aspirin, or iodide was found.

D. G. J.—Esfon is described on the label as "The essence and foundation of health and strength. The new powder food. Containing in food form the minerals (or nutritive salts) necessary for the maintenance of perfect health." The specimen forwarded has been examined and was found to contain 7.3 per cent. of mineral matter, consisting principally of calcium phosphate, which, however, appeared to be present in the substance as calcium glycerophosphate. Nitrogenous matter was present in small quantity and also a substance which reduced Fehling's solution and appeared to belong to the sugar group.

DISTURBED NIGHTS.

DR. WALTER H. DODD (Wimborne) writes: When in practice I used to be troubled much in the same way as "Night Bird," and discovered the cause was due to empty stomach. The simplest remedy was a piece of bread, cake, or biscuit. Stimulants of all kinds or gaseous fluids I found were detrimental to sleep; so also was milk.

DR. DAN M'KENZIE (London, W.) writes: The best stimulant for such conditions is 5 or 7 minims of tinc. nuc. vomic., which in the insomnia of exhaustion acts as a soporific, as I myself have often experienced.

DR. GEORGE CRICHTON (London) writes: It is probably not a stimulant that "Night Bird" requires. During slumber

the circulation is relaxed and slow. When the night bell rings and the summons is obeyed the circulation is stimulated and full and vigorous, especially the cerebral circulation. On retiring to bed again, while the physical system is relaxed, this is not so, sometimes, with the cerebral circulation. The increased flow of blood to the brain caused by active thought calls forth some degree of arterial tension, causing in many cases of sleeplessness headache as well as wakefulness. If this statement be fairly correct, then some drug which relaxes arterial tension is indicated. "Night Bird" would, I think, feel benefit from acetanilide and sodium bromide with caffeine, but it is the vaso-dilator that is the important ingredient. After using three or four times there will probably be established the habit of falling asleep as soon as he gets into bed. My own experience is invariably to fall fast asleep the moment I lie down after being called out, although at other times I may have long spells of sleeplessness.

LETTERS, NOTES, ETC.

DR. J. WREFORD wishes to thank most cordially all friends who have helped him to get his nephew elected to Epsom College

A WARNING.

DR. A. GEORGE BATEMAN, General Secretary, Medical Defence Union, 4, Trafalgar Square, W.C., writes: Should any of your readers receive a call from a person representing himself to be John Douglas Milne, M.R.C.S.Ed. (*sic*) and L.R.C.P., it would be advisable to communicate with me before entering into any transactions, professional or otherwise, with him.

FLIES AND MILK.

WE have received from Sumner and Co. (Liverpool) a small pamphlet which they are issuing to medical officers of health throughout the country. The pamphlet deals with the question of the causation of infantile diarrhoea through the contamination of milk by flies. Accompanying it is a sample of a medium-sized cover, designed with a view to protect milk from flies and other insects. The cover consists of a piece of soft gauze, 8 in. square, weighted at each corner by a small detachable pellet of lead. That the "Covers" might serve a useful purpose in the intended direction is undoubted. Except in the case where the rim of the jug, or other containing vessel, was a level surface, we would not, however, have considered the leads sufficiently weighty to have secured efficient exclusion of insects. The "Covers" are sold in three different sizes at a reasonable cost, and the same firm supply covers of the same material for infantile cots.

DR. ALEXANDER BRYCE (Birmingham) writes: In the excellent review of Sir James Crichton-Browne's *Parcimony in Nutrition*, which appeared in the JOURNAL of June 19th, your contributor makes this observation: "Like Fletcher, Carrington, Dewey, Kellogg, and other members of the great army of faddists." Now, I have always thought that a faddist was a man of one idea, and the dictionary definition lends some support to this view when it describes the faddist as "one who urges any unimportant belief or practice intemperately." I have no doubt this description would fit with some accuracy men like Fletcher, Carrington, and Dewey; but it is quite incomprehensible to me that Dr. J. H. Kellogg, of Battle Creek, Michigan, U.S.A., could by any possible chance be included in the same category as these men. I have known him personally for many years, and, although I am at variance with him on many points, both of practice and belief, I am glad to include him amongst my friends. I have just returned from a visit to the scene of his many activities in America, and have been astounded at the manner in which he keeps a whole army of scientific workers ever on the alert to elucidate knotty problems in every branch of medical research. He has lived to see many of his so-called heterodox views quietly appropriated by others and take their rightful place in the pages of orthodox books of medicine. He has urged—perhaps intemperately—the claims of electricity, hydropathy, and dietotherapy as branches of the healing art for nearly forty years, and it is greatly to his credit that, in the face of much medical opposition and public obloquy, he has stuck to his guns till their worth was recognized. He is an unwearied student of every branch of medicine, sparing neither pains nor expense to perfect himself in all its details. At the beginning of his career, for over a year he acted as assistant to Dr. George M. Beard, and imbibed from him much of his extensive knowledge of electricity. Twenty years ago, finding that much abdominal surgery was likely to fall in his way, he became a pupil of Lawson Tait, and was rewarded by being able to put on record in America the first consecutive series of 167 abdominal sections without a death. He has no reason to be ashamed of his work either in electricity, hydropathy, or surgery. As for his dietetic views, with which I do not agree, I am impressed by the fact that nowhere have I seen such careful research work nor any better-equipped laboratories for proving or disproving his various theories. The various journals for which he is responsible are remarkably free from bias, and record the results of research, giving as much emphasis to the views of his opponents as to his own.

ANIMAL PARASITES.

DR. R. T. LEIPER, Helminthologist to the London School of Tropical Medicine, writes to express the opinion that the volume on the investigation of animal parasites published by Professor M. Braun and Dr. M. Lühe (Konigsberg), referred to at page 1580 of the JOURNAL of June 26th, is invaluable to those desirous of gaining a knowledge of the structure and development of parasitic worms, not from mere book work, but from practical study, the handbook being full of the best and most recent methods of research. He considers that, so far as concerns the half-volume dealing with helminthes, the text is not a synopsis of Braun's *Tierischen Parasiten des Menschen*; it covers different ground, dealing almost entirely with methods of collecting, preserving, and examining material, and has, in his opinion, been obviously specially written. Though the illustrations are familiar, they represent the actual specimens so excellently that he thinks it questionable if they could have been replaced with advantage.

LADY DISPENSERS.

A CORRESPONDENT has taken exception to the information given at page 1216 on May 15th, in answer to an inquiry as to how a lady might qualify herself for dispensing work. His view would seem to be that it should have been stated that the assistant's certificate of the Society of Apothecaries of London is of an inferior character, and that those who employ persons holding it expose themselves to some risk.

As regards the relative value of these two qualifications as a proof of knowledge, the particulars given clearly showed that to obtain the assistant's certificate does not necessarily require more than six months' work; whereas to qualify for the minor certificate of the Pharmaceutical Society entails an apprenticeship of not less than three years, attendance at stated lectures, and the passage of examinations both in theory and in practice. This made it clear that the one is in a sense higher than the other, but does not prove any inferiority in the assistant's certificate so far as its immediate purpose is concerned. As for the risks supposed to be run by the employers of those who hold this certificate, they do not seem to exist. The precise distribution of legal responsibility between a dispenser, whatever his qualification, and a prescriber, is a matter of some doubt; but in any case, since the assistant's certificate is a statutory qualification, established by Section XVII of the Apothecaries Act, 1815, it seems improbable that any court would hold that a medical man had failed to exercise due care if he could show that the person to whom he entrusted the duty of making up his prescriptions held this certificate. Nor would there seem to be any practical risk. As for the value of this certificate to its holder, this is without doubt very considerable. It is not every one who wishes to open a chemist's shop, nor every medical man or medical institution who can afford to employ a holder of the minor certificate, and a very large number of public institutions think it right to employ persons who have no other qualification than the one in question. In particular, the regulations of the Metropolitan Asylums Board definitely contemplate their habitual employment in sole charge of its dispensaries.

THE MODERN TREATMENT OF FRACTURES.

DR. J. REID (London) writes: With reference to the treatment of fractures recommended by Dr. Lucas-Championnière, in my student days at Aberdeen I was taught that the first requisite was to obtain apposition, the second to maintain this until callus had formed, a splint on the twelfth day, and thereafter to use reasonable care and obtain movement by placing the affected limb in hot water about the twenty-first day. I was surprised at the rigid splints for three months used by the leading London surgeons. However, I already notice the tendency to use massage in the case of fractures regardless of pain, and with the production of considerable swelling and inflammatory action, especially in fractures near joints. I have seen a surgeon whose bandages and splinting were perfect to look at induce a worm-eaten, *non-absorbed* callus! The *new treatment* of fractures was, I think, called for, and the method I used of being satisfied with an efficient splint only may not have satisfied many examiners in 1882, but I think it answered its function. Over-splinting has been a curse—let us hope that over-massaging will not also prove a curse!

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